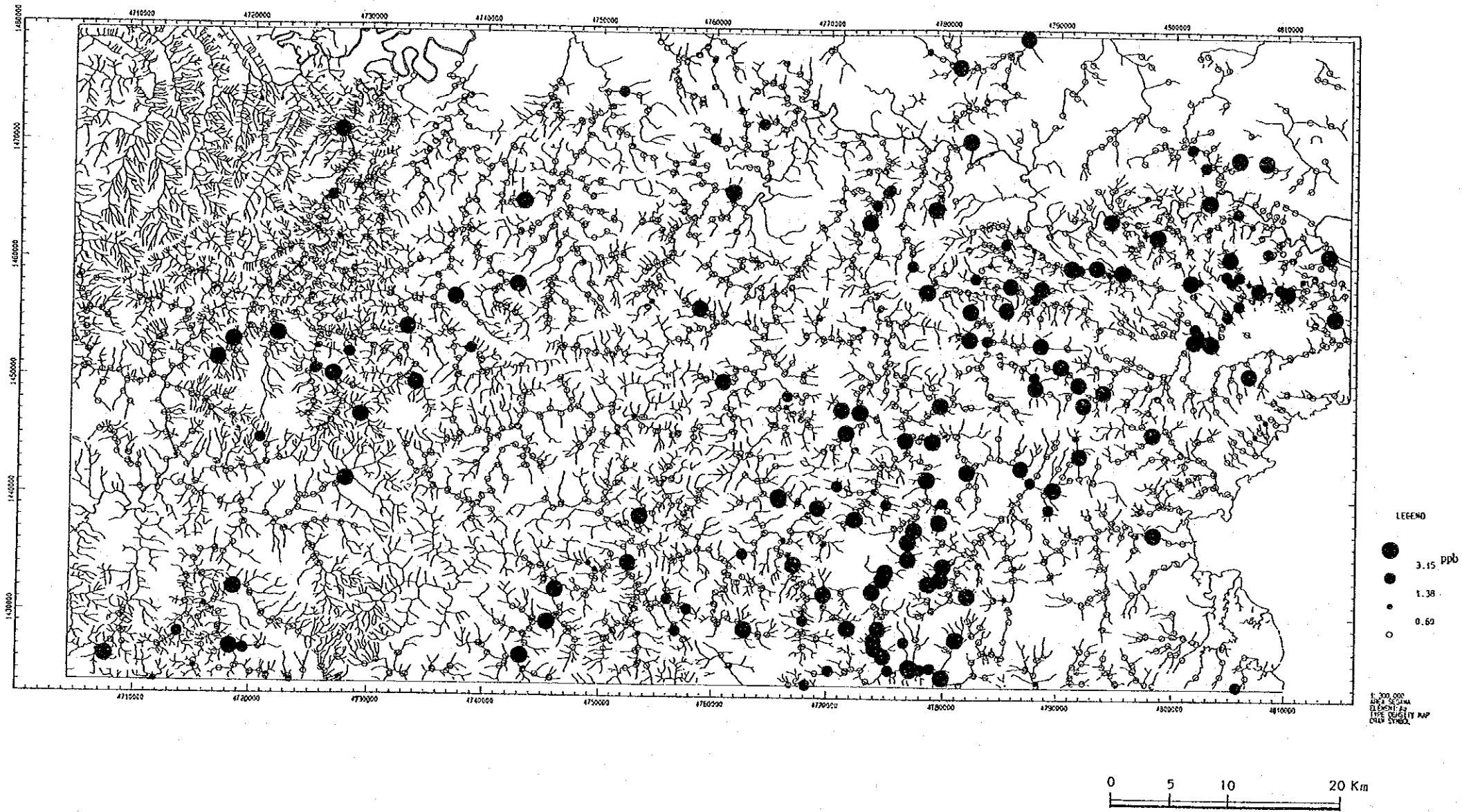
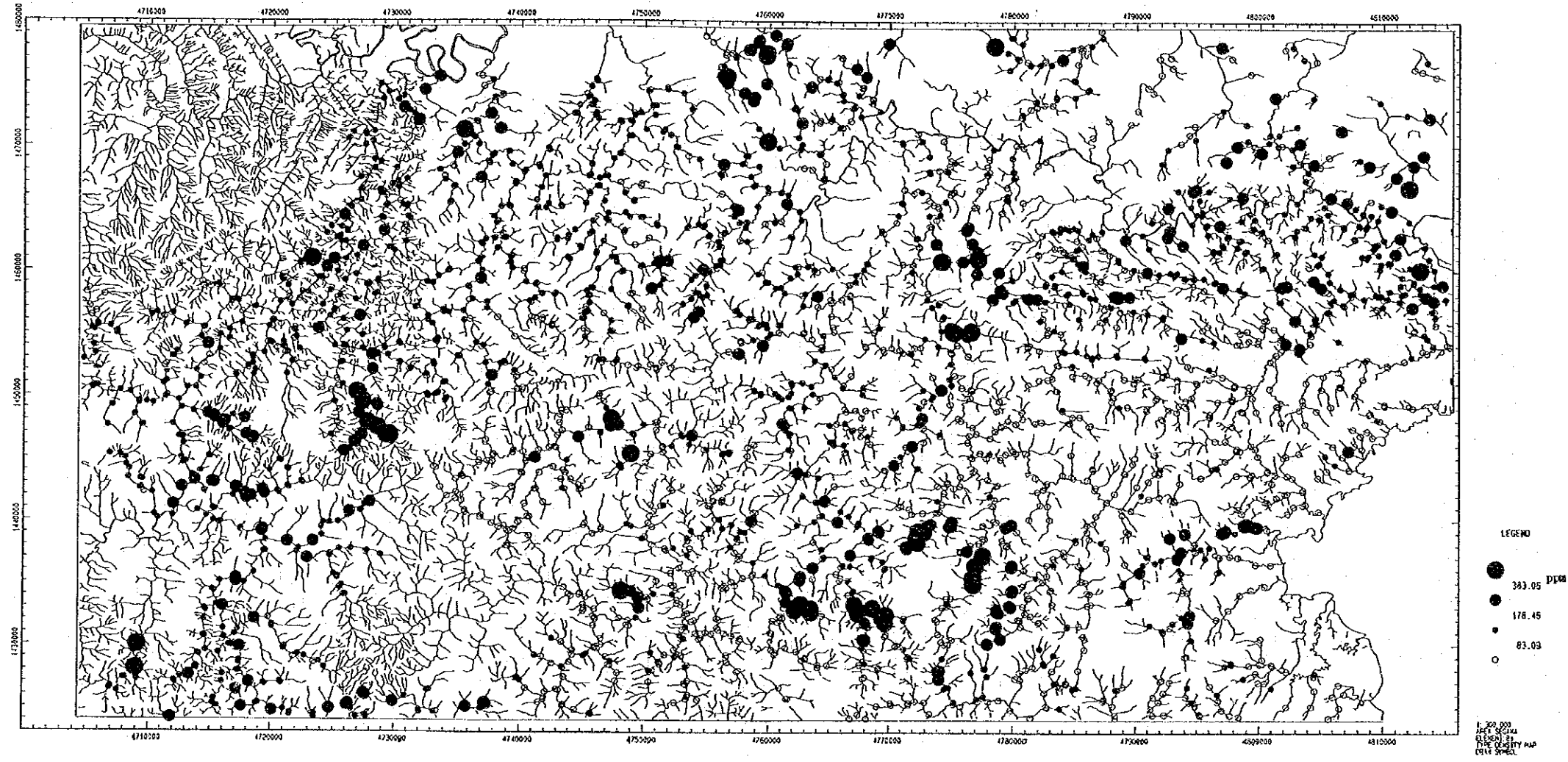


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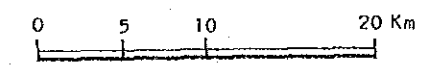
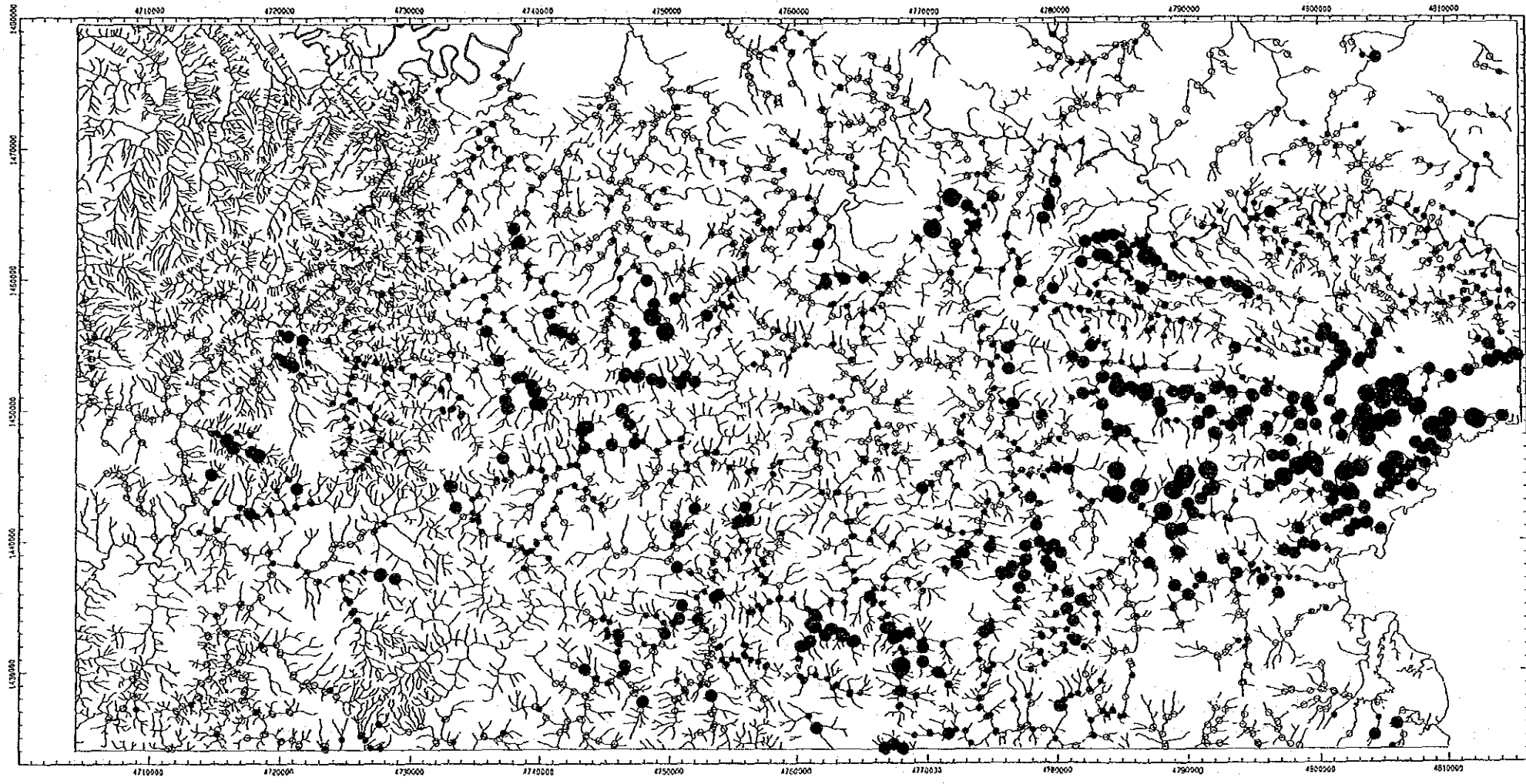


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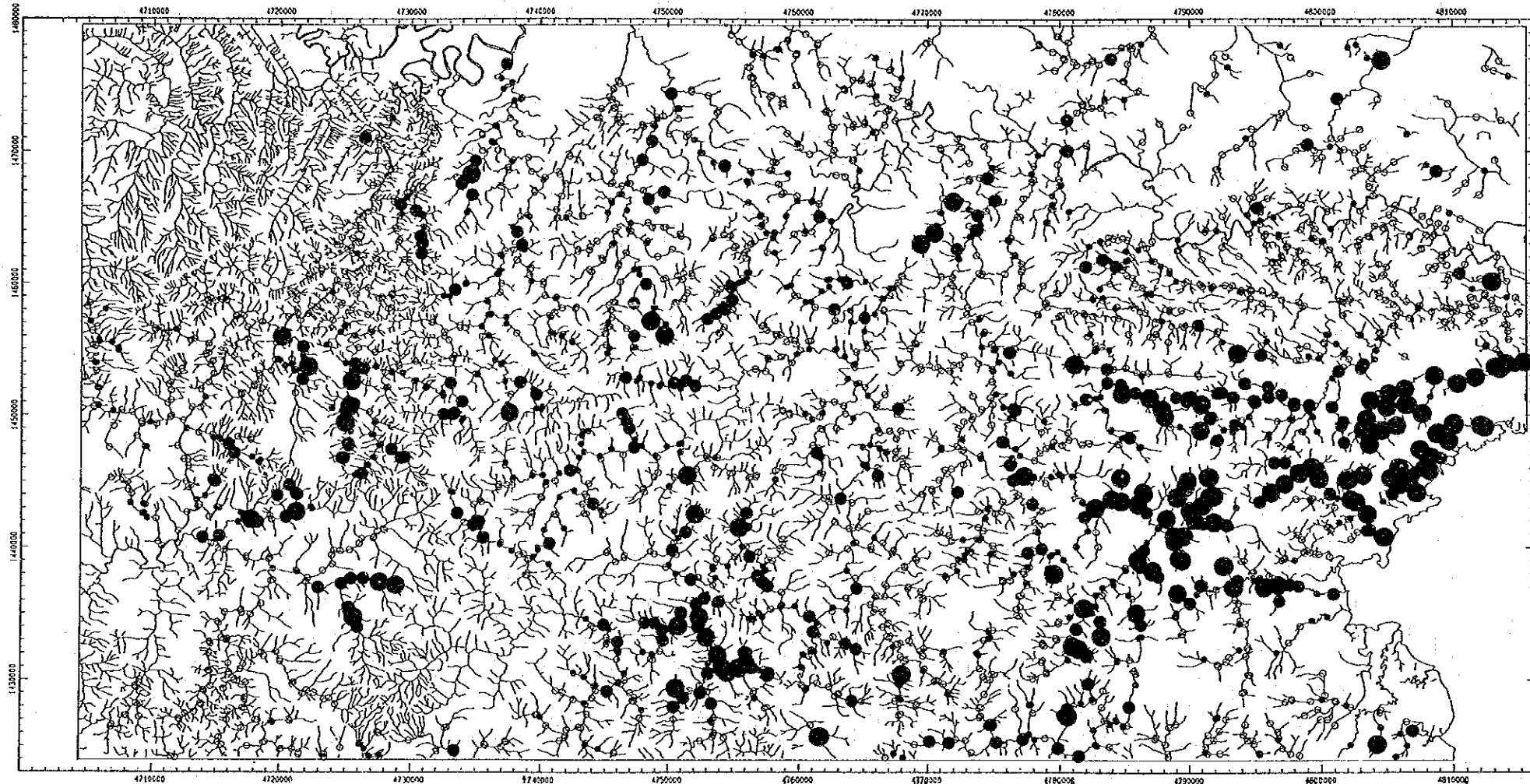


Co





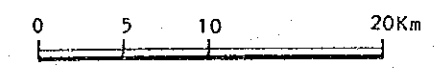
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LEGEND

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- 789.65
- 336.65
- 

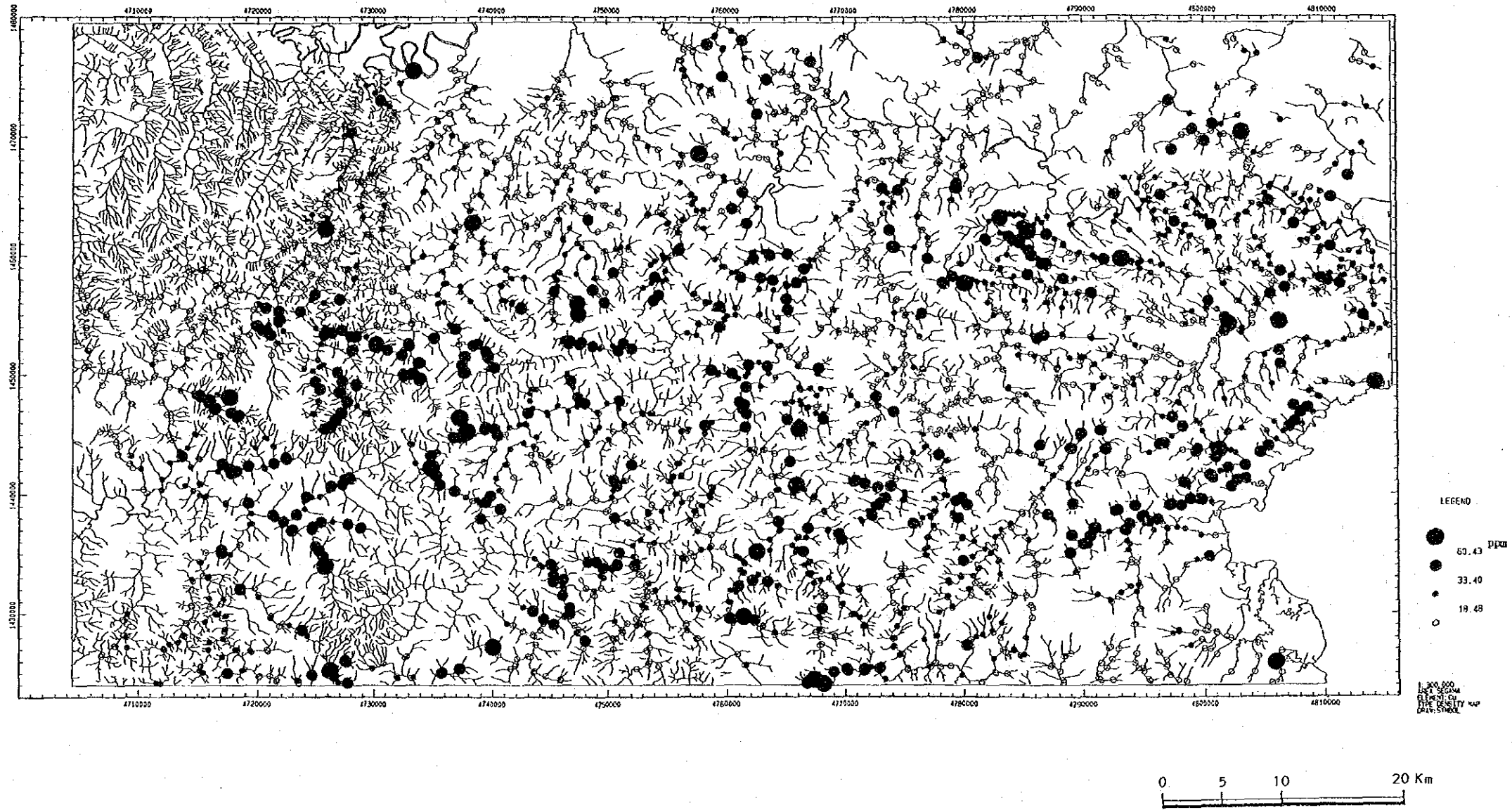
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DRAW: 1/23





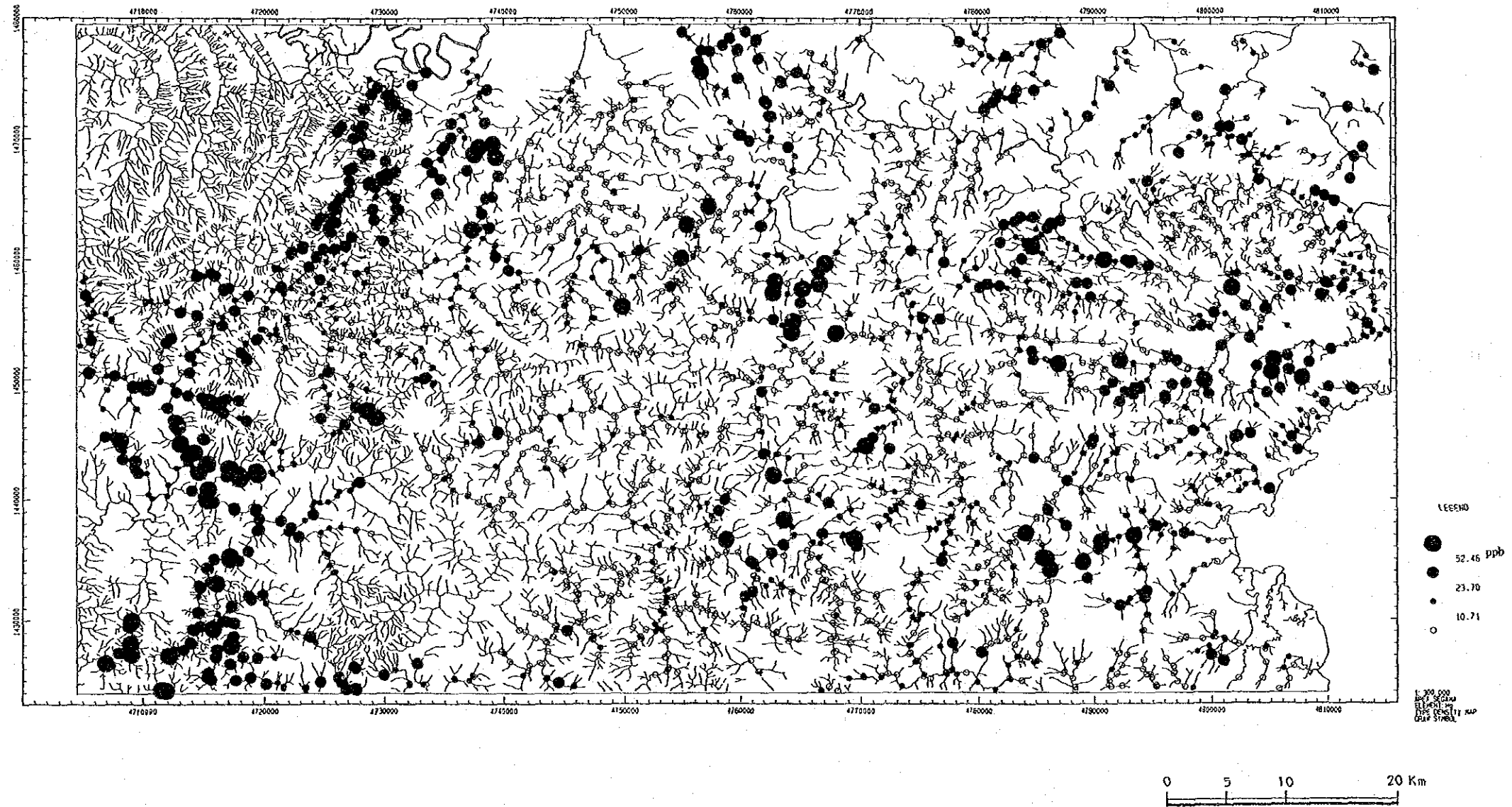


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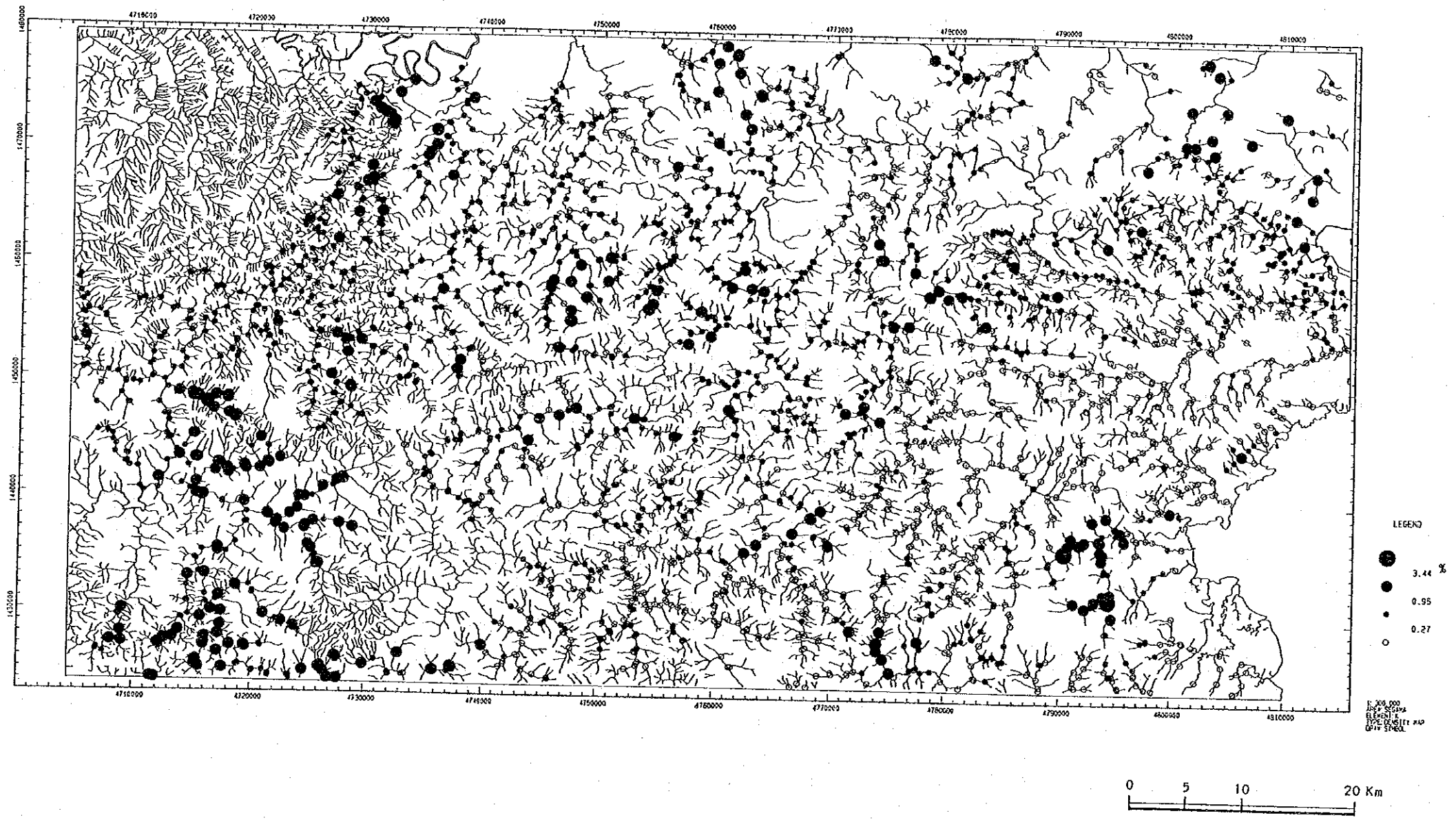


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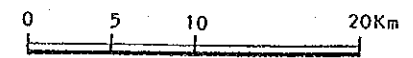
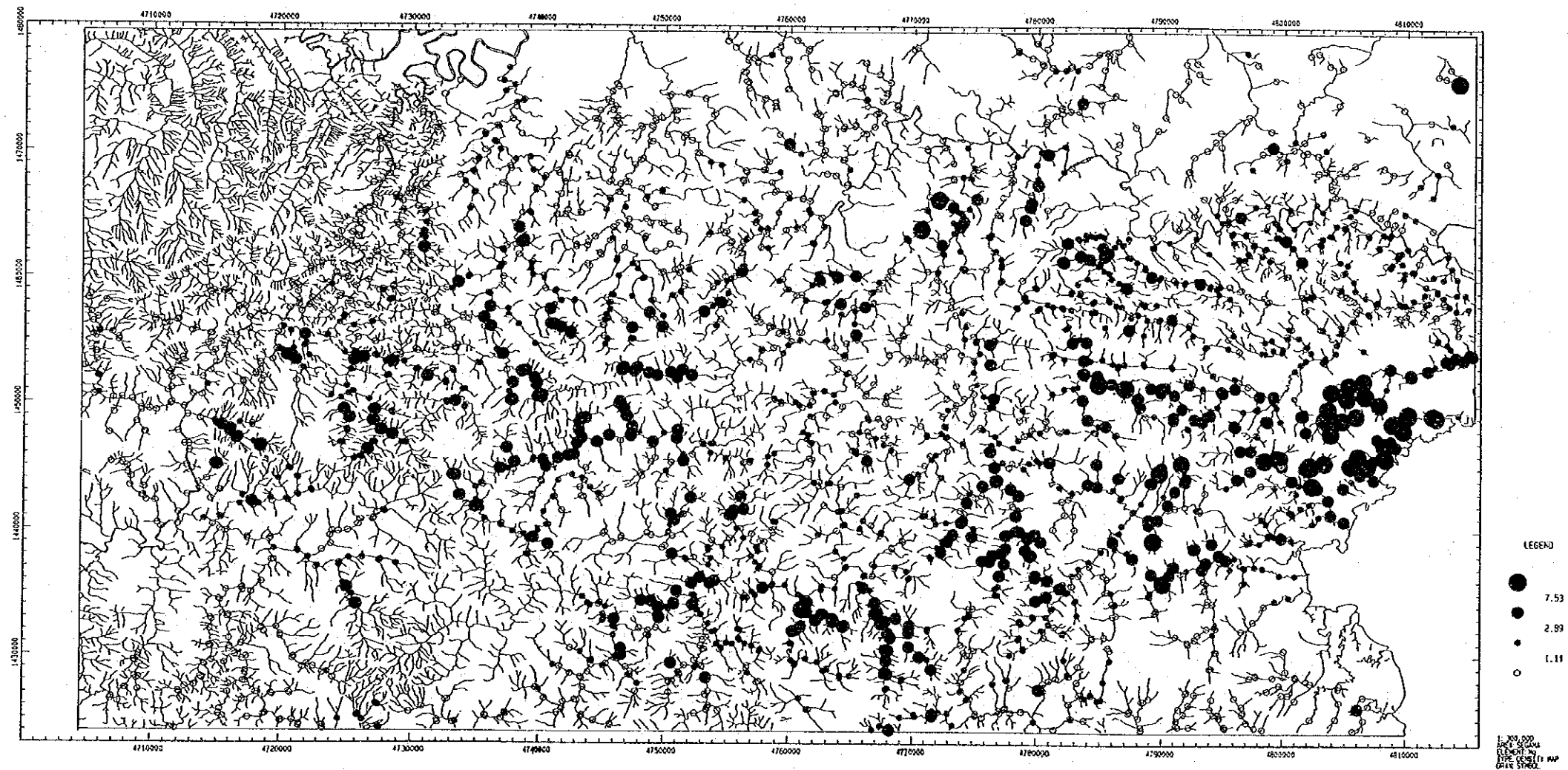


K





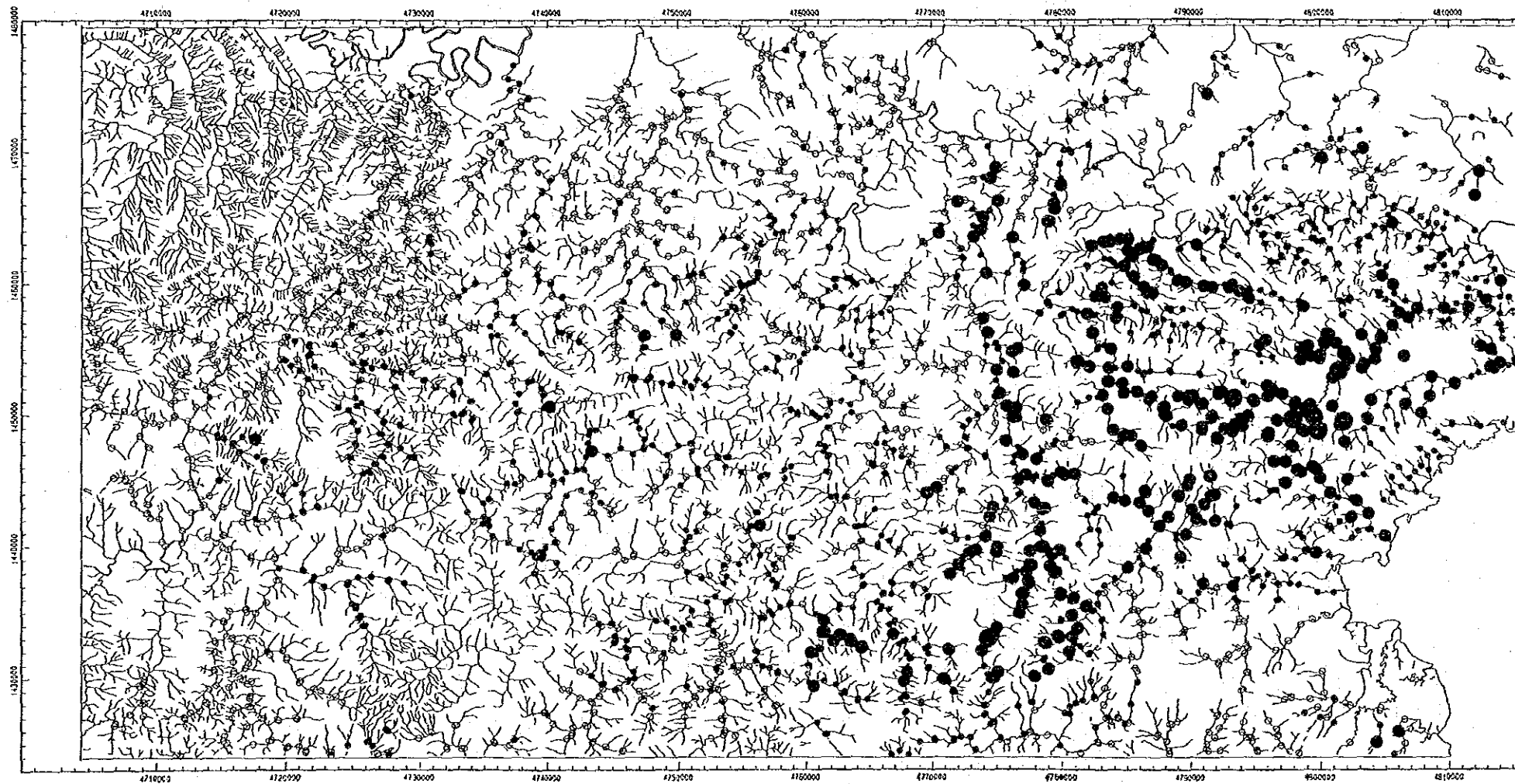
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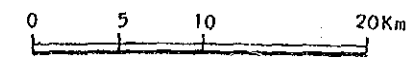
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LEGEND

- 7573.01 ppm
- 2076.87
- 569.39
- 

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MAY 1964  
CLASSIFIED  
TOP SECRET MAP  
DEAR SYDNEY

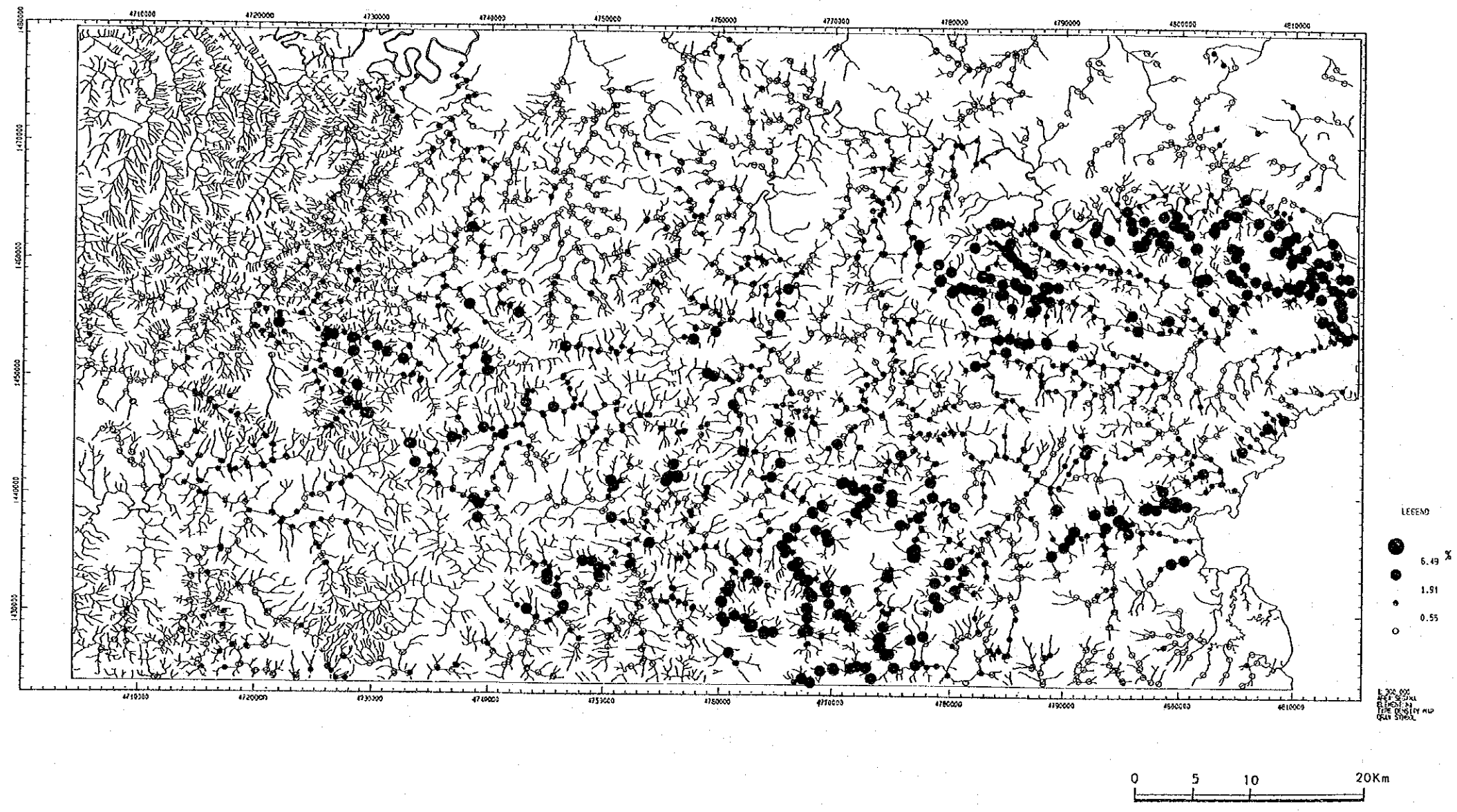






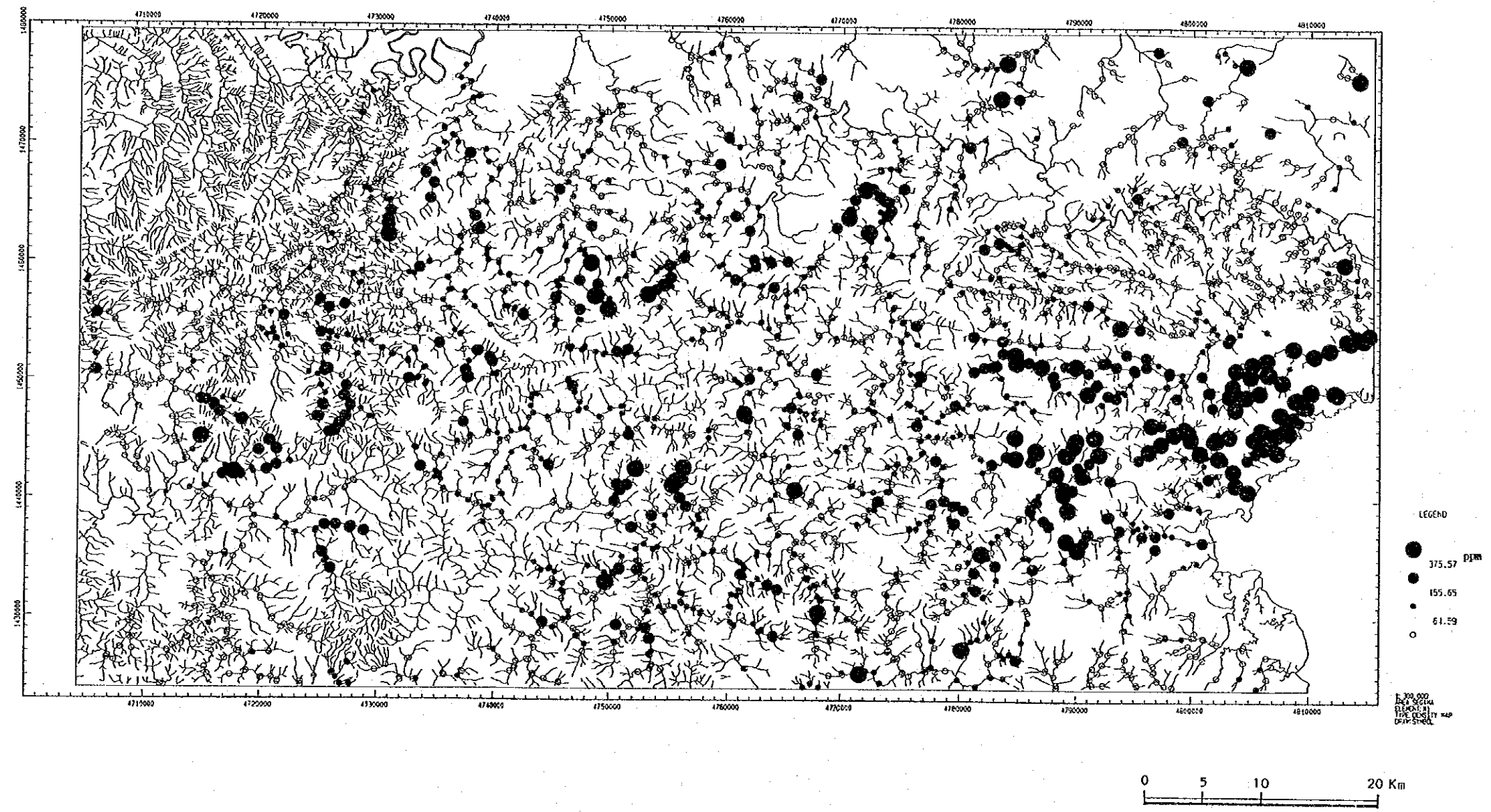


Na





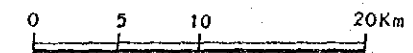
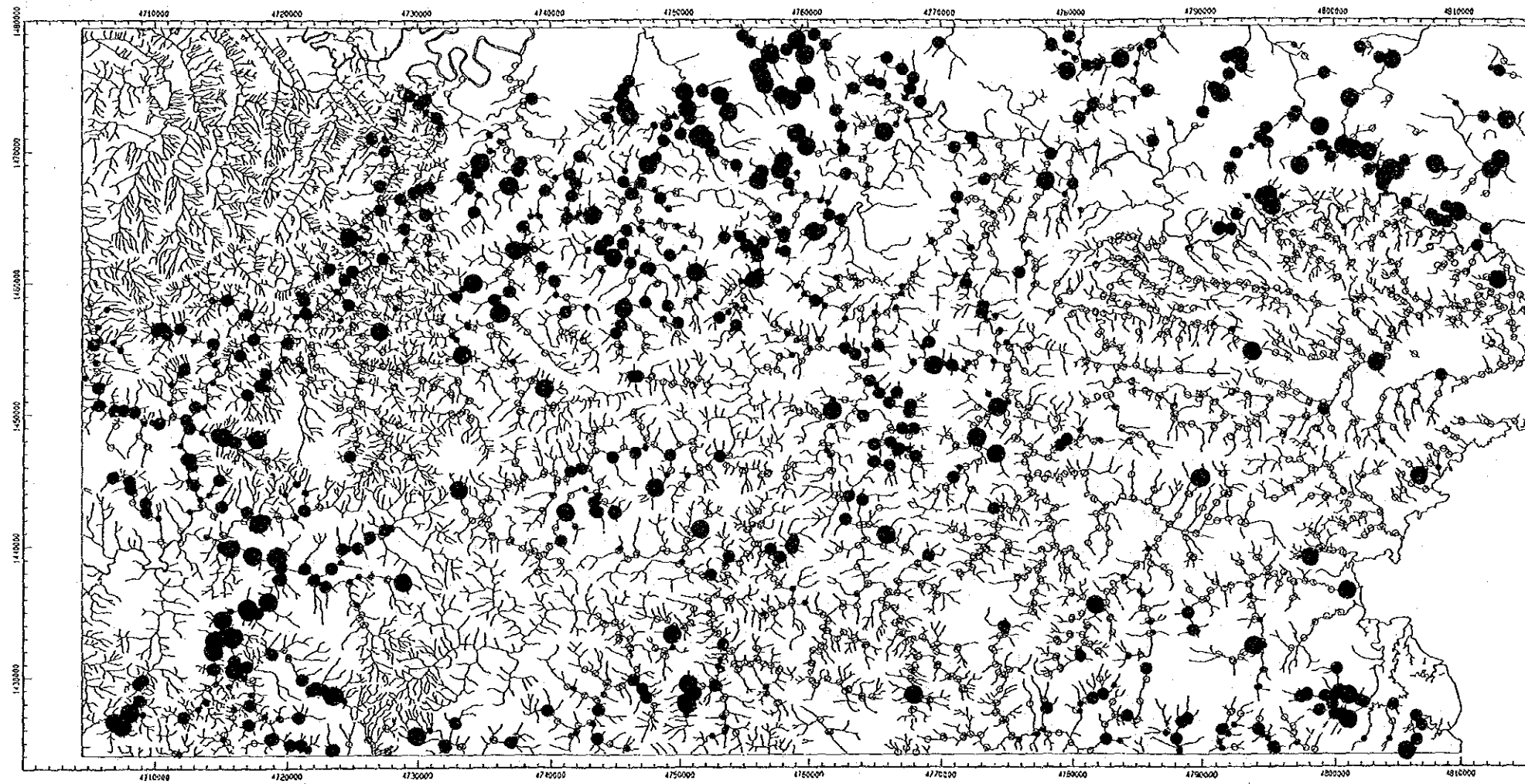
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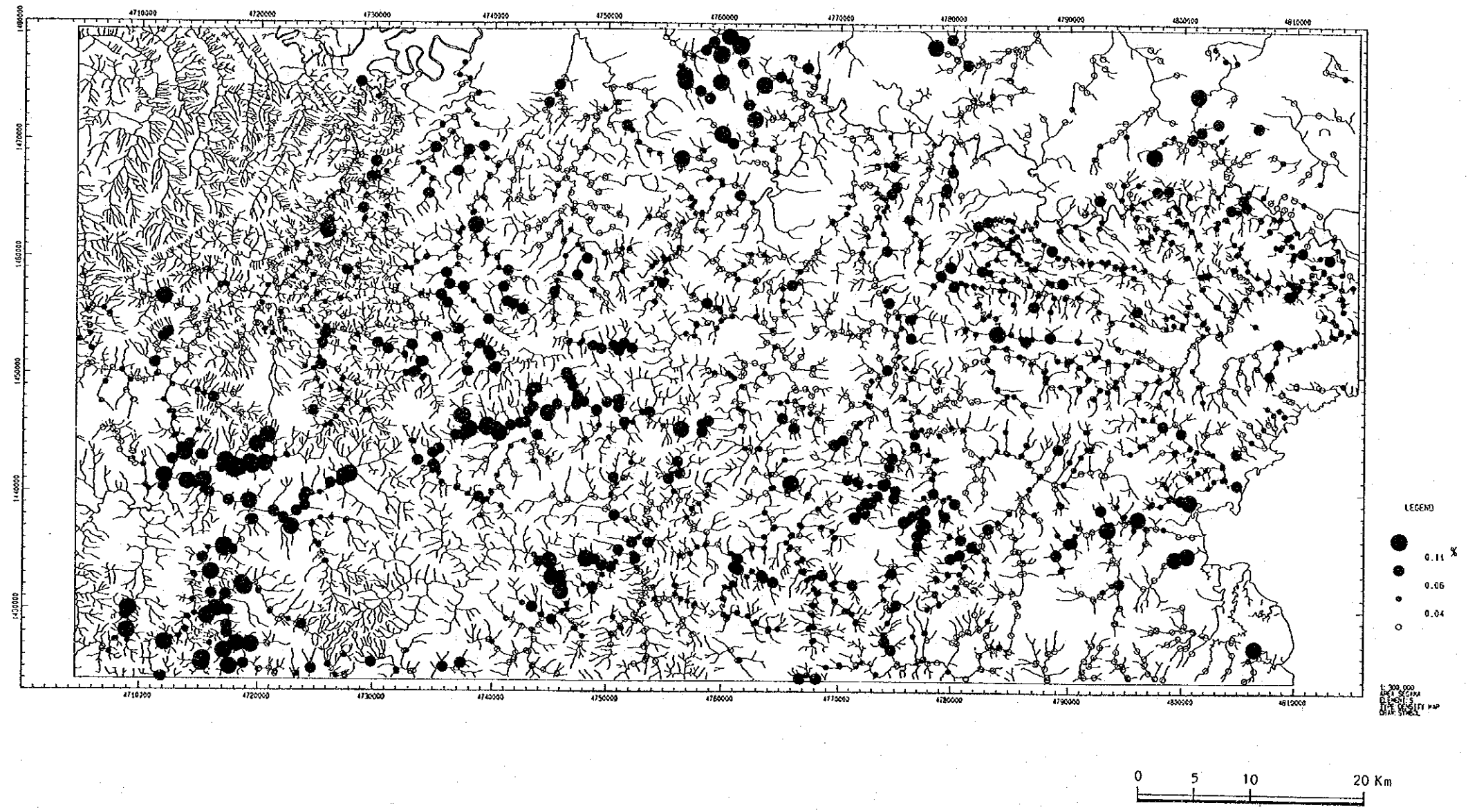


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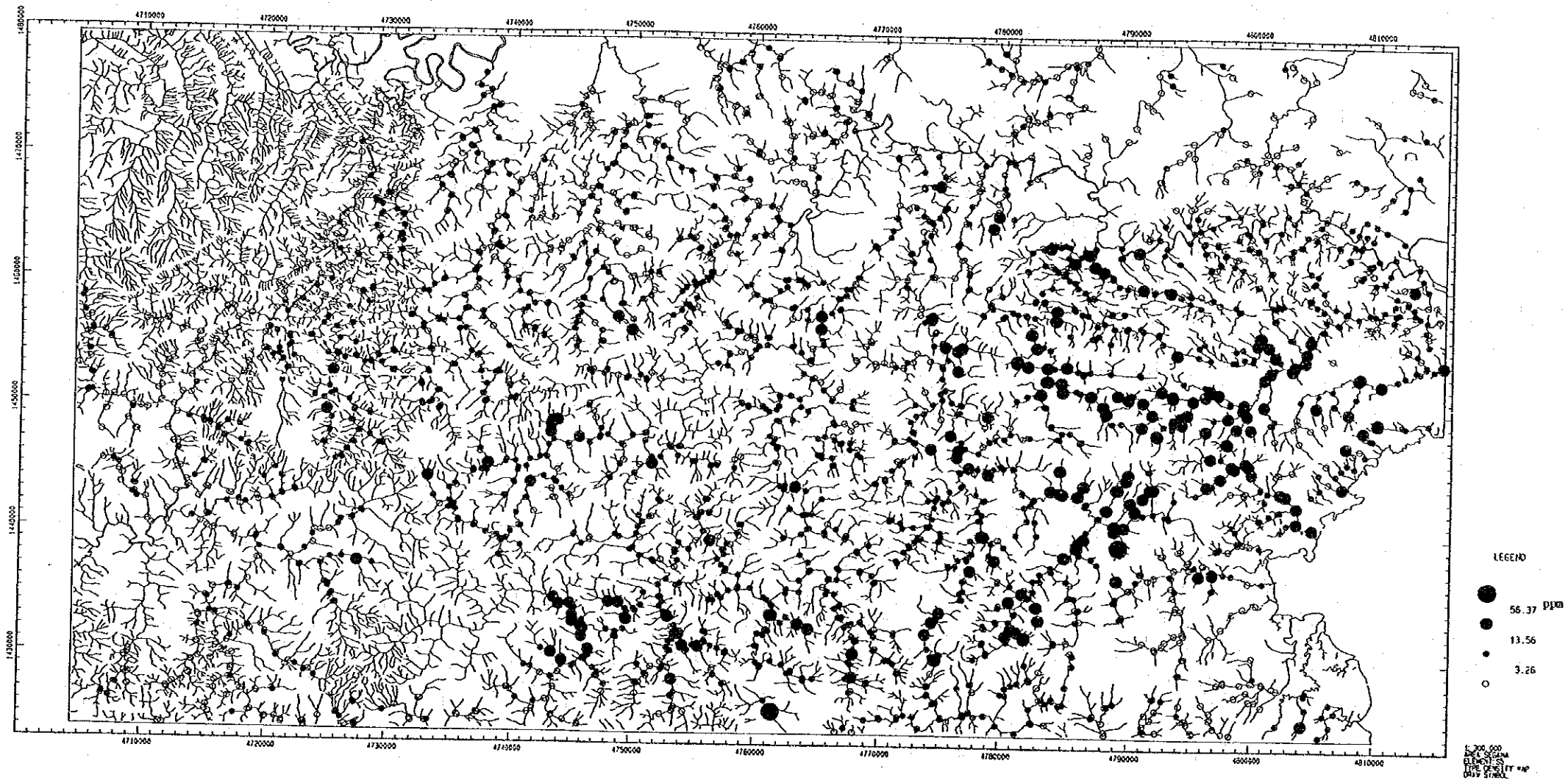


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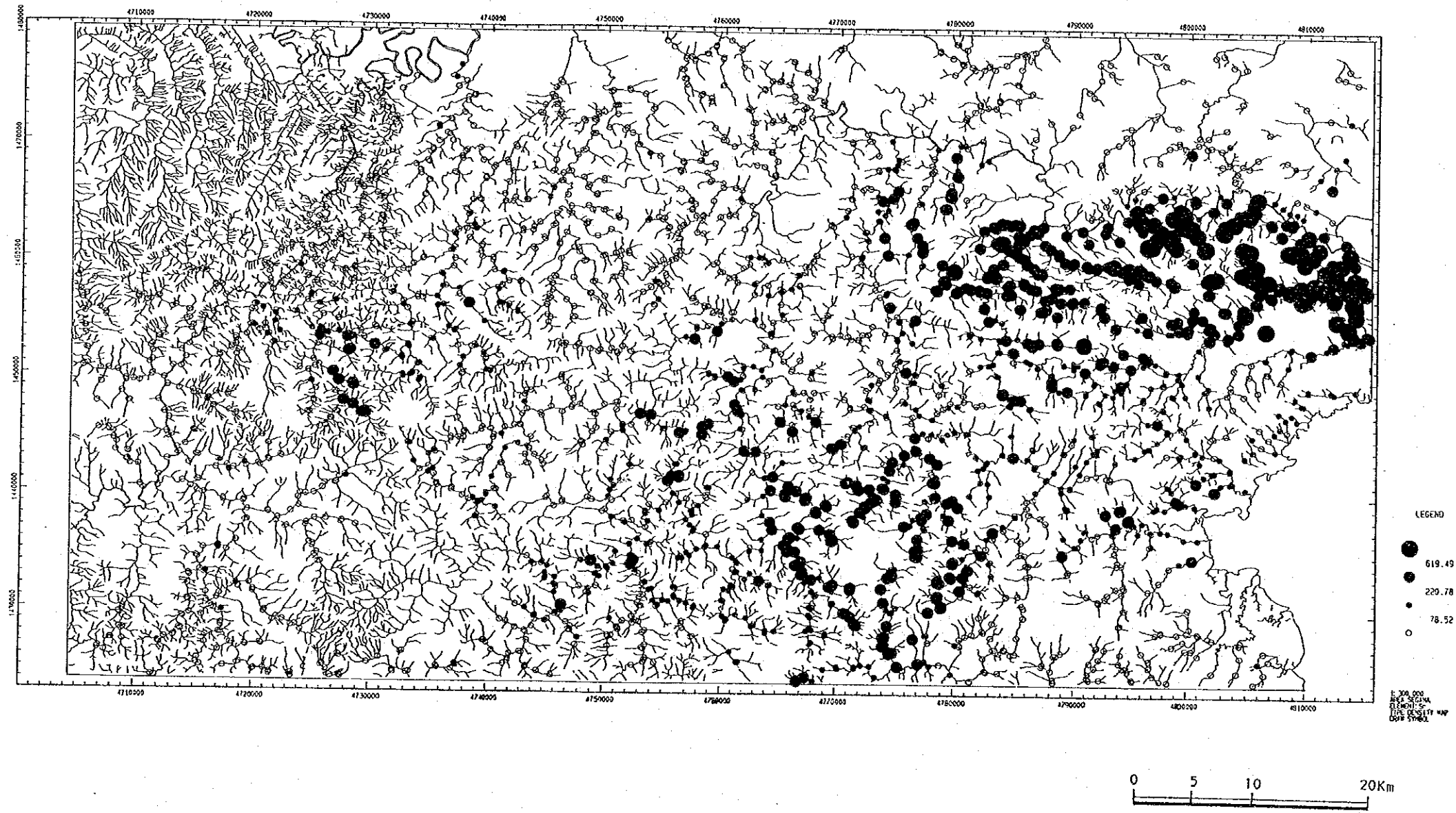


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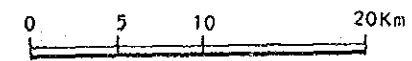
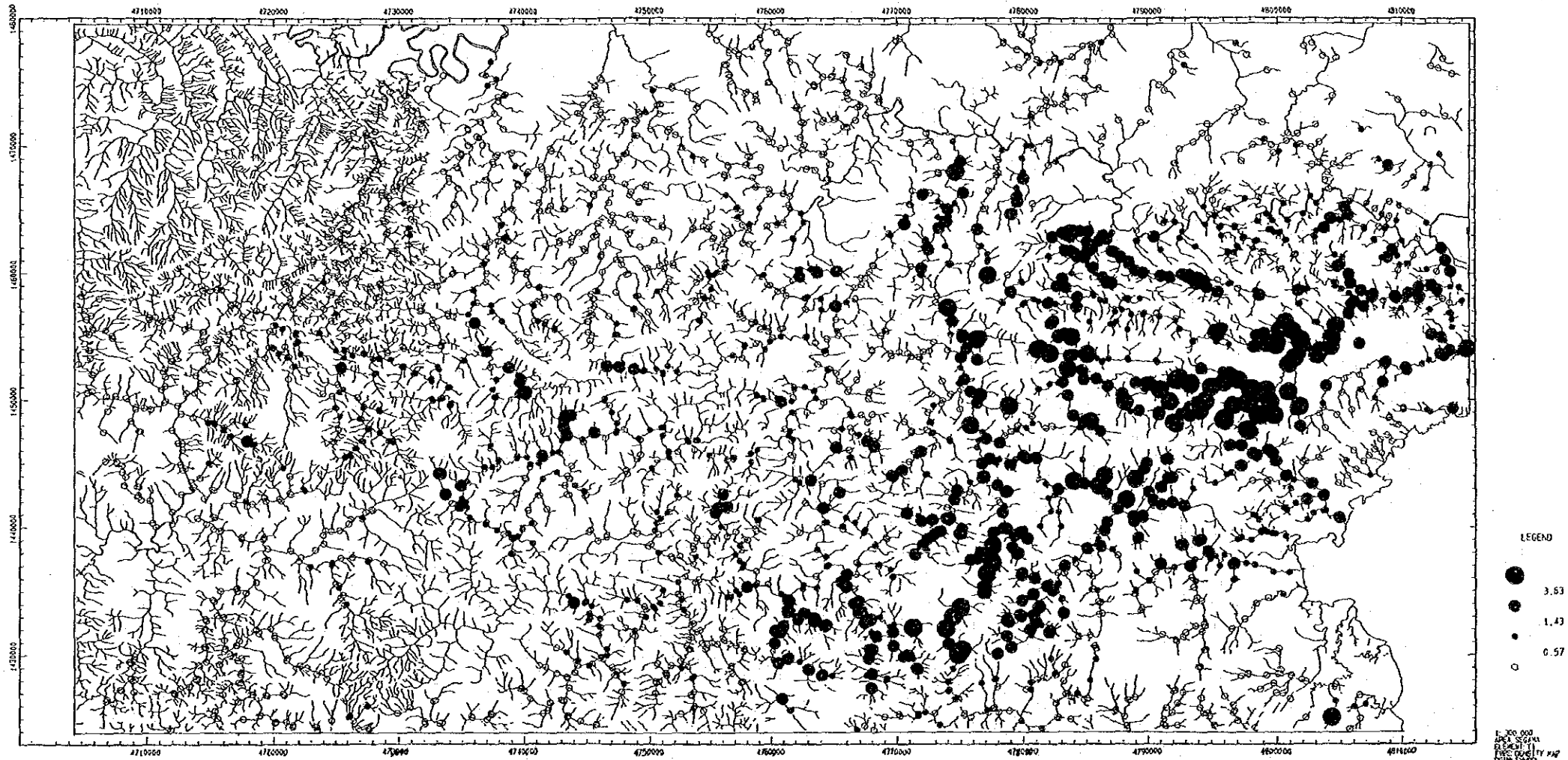
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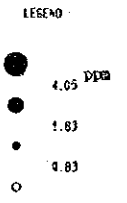
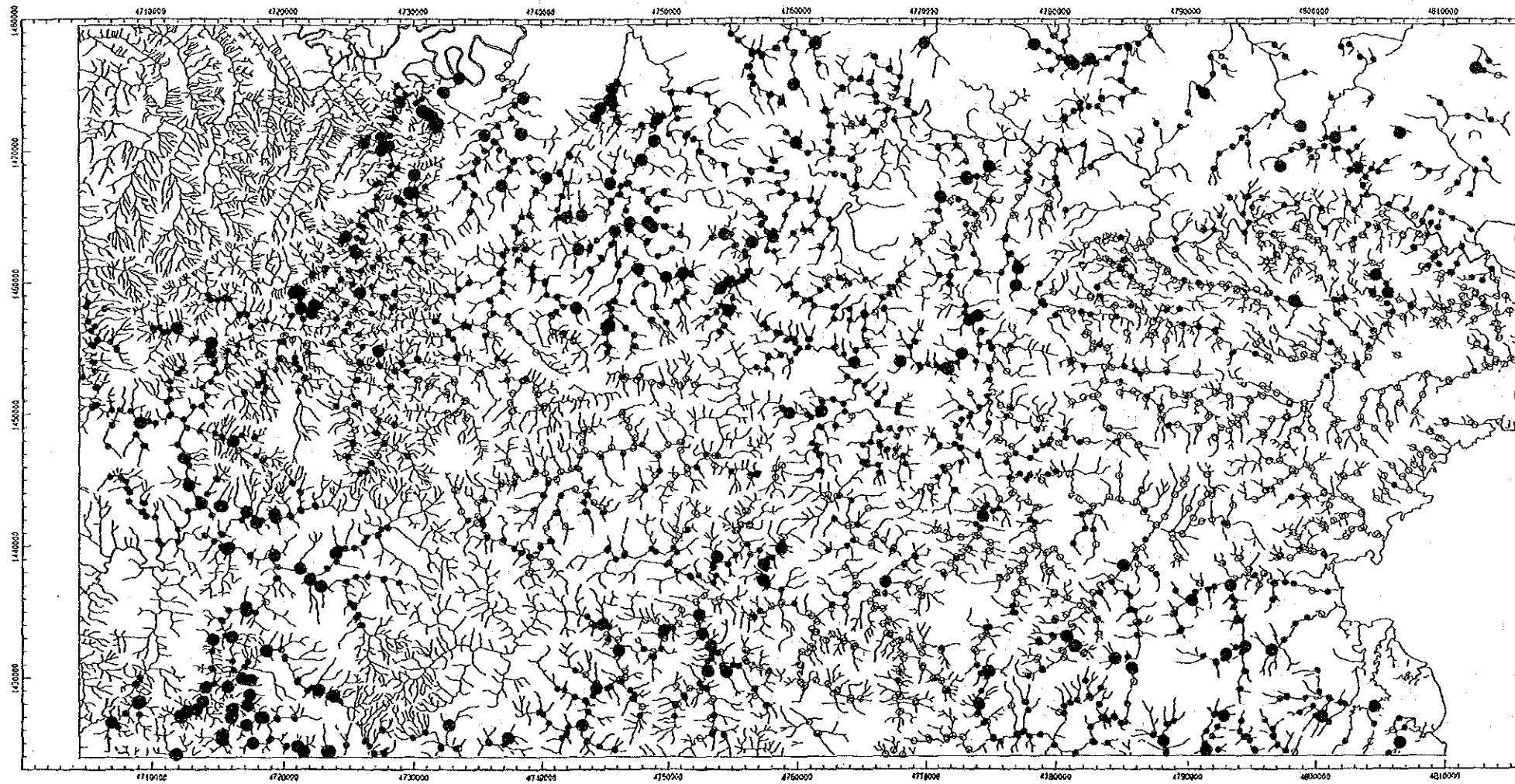


Ti

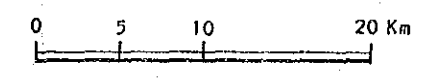




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DATE 11/8/54

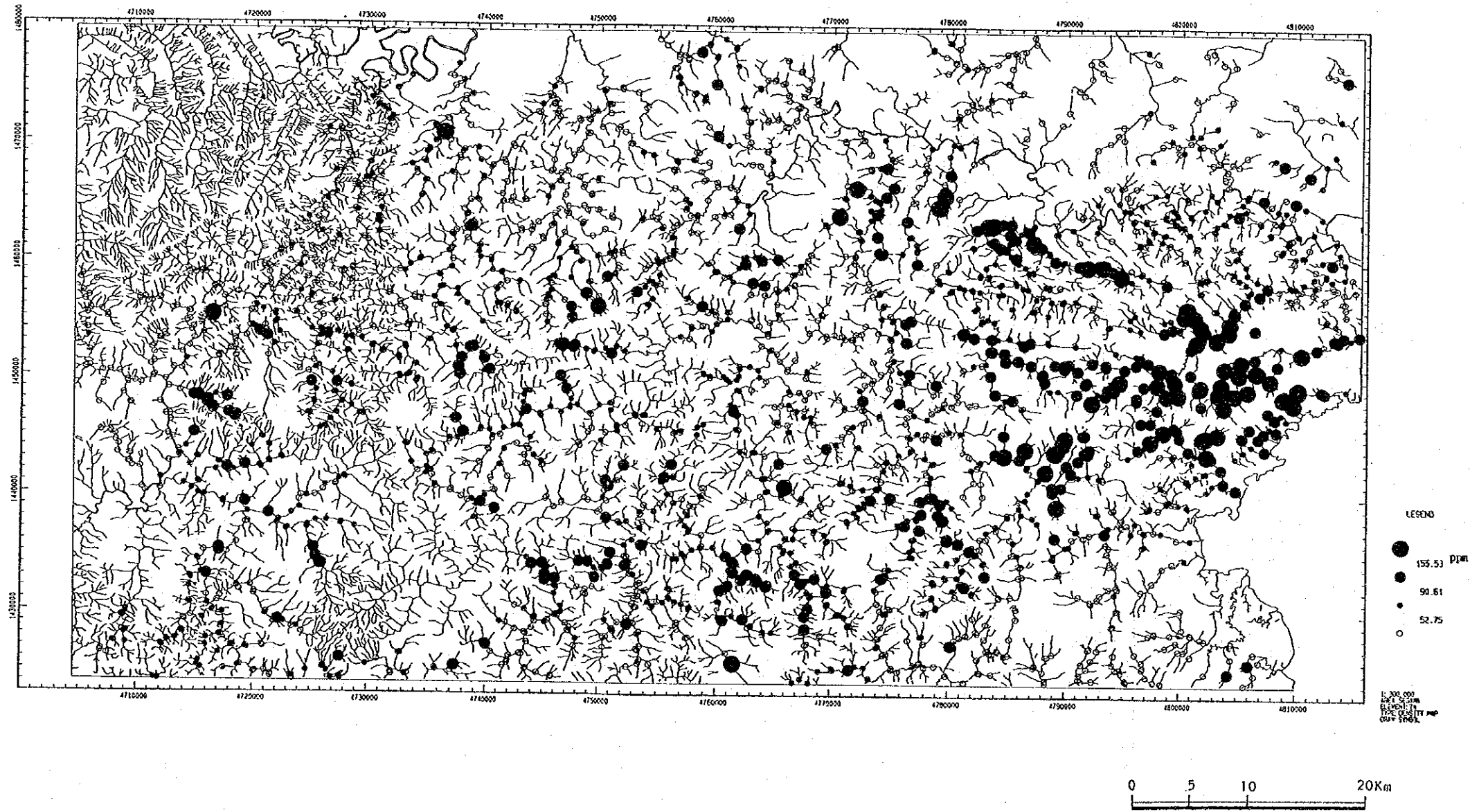








Zn







Appendix 6

List of pan concentrate sample  
in the Segama area



| Ser. No. | Sample No. | Coordinates |         | Topographic Map Sheet | Name of Stream | Weight (g) | Order | Width (m) | Flow *1 | Size *2 |
|----------|------------|-------------|---------|-----------------------|----------------|------------|-------|-----------|---------|---------|
|          |            | N           | E       |                       |                |            |       |           |         |         |
| 1        | P074       | 1453.70     | 4705.45 | Kuamut                | S. Laburawan   | < 1        | 4     | 4.0       | 4       | 1       |
| 2        | P069       | 1456.55     | 4710.25 | Kuamut                | S. Anbial      | < 1        | 3     | 2.0       | 4       | 1       |
| 3        | P068       | 1453.00     | 4714.80 | Kuamut                | S. Anbial      | < 1        | 3     | 6.0       | 4       | 1       |
| 4        | Y060       | 1456.65     | 4717.45 | Kuamut                | S. Kuamut      | < 1        | 4     | 4.0       | 3       | 2       |
| 5        | Y058       | 1454.15     | 4719.60 | Kuamut                | S. Malog       | < 1        | 3     | 5.0       | 3       | 1       |
| 6        | Y059       | 1454.20     | 4719.85 | Kuamut                | S. Malog       | < 1        | 4     | 7.0       | 3       | 1       |
| 7        | Y057       | 1456.20     | 4720.00 | Kuamut                | S. Malog       | < 1        | 3     | 6.0       | 3       | 3       |
| 8        | Y061       | 1457.75     | 4721.35 | Kuamut                | S. Kuamut      | < 1        | 3     | 5.0       | 3       | 1       |
| 9        | C053       | 1459.35     | 4724.00 | Kuamut                | S. Sangitan    | 20         | 4     | 10.0      | 2       | 1       |
| 10       | C054       | 1460.20     | 4724.30 | Kuamut                | S. Kuamut      | 1          | 3     | 5.0       | 2       | 1       |
| 11       | C055       | 1459.80     | 4725.20 | Kuamut                | S. Kuamut      | 4          | 3     | 5.0       | 2       | 1       |
| 12       | Y055       | 1462.70     | 4725.35 | Kuamut                | S. Kuamut      | < 1        | 3     | 4.0       | 2       | 4       |
| 13       | C052       | 1453.85     | 4725.55 | Kuamut                | S. Sangitan    | 14         | 3     | 5.0       | 2       | 1       |
| 14       | C048       | 1453.80     | 4726.00 | Kuamut                | S. Sangitan    | 26         | 4     | 5.0       | 2       | 1       |
| 15       | Y056       | 1461.35     | 4726.40 | Kuamut                | S. Buyun       | < 1        | 3     | 4.0       | 3       | 3       |
| 16       | Y051       | 1466.50     | 4727.15 | Kuamut                | S. Minilog     | < 1        | 4     | 10.0      | 1       | 4       |
| 17       | Y050       | 1470.85     | 4727.55 | Kuamut                | S. Kuamut      | < 1        | 3     | 8.0       | 1       | 4       |
| 18       | C051       | 1453.25     | 4728.50 | Kuamut                | S. Sangitan    | 24         | 3     | 3.0       | 2       | 1       |
| 19       | C050       | 1453.15     | 4728.55 | Kuamut                | S. Sangitan    | 21         | 4     | 5.0       | 2       | 1       |
| 20       | Y052       | 1465.15     | 4729.10 | Kuamut                | S. Minilog     | 9          | 2     | 8.0       | 3       | 2       |
| 21       | Y053       | 1465.30     | 4729.30 | Kuamut                | S. Minilog     | 9          | 2     | 10.0      | 3       | 2       |
| 22       | P066       | 1473.55     | 4730.35 | Kuamut                | S. Kuamut      | < 1        | 3     | 1.5       | 4       | 1       |
| 23       | C049       | 1452.70     | 4730.40 | Kuamut                | S. Sangitan    | 12         | 4     | 5.0       | 2       | 1       |
| 24       | P067       | 1475.45     | 4733.55 | Sungai Malua          | S. Naping      | < 1        | 2     | 3.0       | 3       | 1       |
| 25       | G052       | 1456.75     | 4735.50 | Sungai Malua          | S. Malubuk     | 10         | 4     | 10.0      | 3       | 1       |
| 26       | G051       | 1457.65     | 4736.00 | Sungai Malua          | S. Malubuk     | 8          | 5     | 10.0      | 2       | 1       |
| 27       | G050       | 1457.70     | 4736.15 | Sungai Malua          | S. Malubuk     | 10         | 2     | 3.0       | 3       | 1       |
| 28       | Y049       | 1470.60     | 4736.25 | Sungai Malua          | S. Malubuk     | 4          | 3     | 8.0       | 3       | 3       |
| 29       | Y048       | 1470.70     | 4736.45 | Sungai Malua          | S. Malubuk     | 4          | 5     | 40.0      | 3       | 3       |
| 30       | G048       | 1460.80     | 4736.60 | Sungai Malua          | S. Malubuk     | 4          | 3     | 3.0       | 4       | 1       |
| 31       | Y047       | 1469.15     | 4737.80 | Sungai Malua          | S. Malubuk     | < 1        | 2     | 5.0       | 3       | 3       |
| 32       | C047       | 1476.70     | 4737.50 | Sungai Malua          | S. Malubuk     | 21         | 5     | 15.0      | 2       | 1       |
| 33       | G046       | 1462.80     | 4738.40 | Sungai Malua          | S. Malubuk     | 5          | 5     | 10.0      | 4       | 1       |
| 34       | K042       | 1452.40     | 4738.40 | Sungai Malua          | S. Malubuk     | 4          | 2     | 4.0       | 3       | 1       |
| 35       | G047       | 1462.80     | 4738.60 | Sungai Malua          | S. Malubuk     | 4          | 3     | 6.0       | 4       | 1       |
| 36       | C045       | 1467.70     | 4740.20 | Sungai Malua          | S. Malubuk     | 75         | 5     | 10.0      | 2       | 1       |
| 37       | C046       | 1468.05     | 4740.35 | Sungai Malua          | S. Malubuk     | 2          | 4     | 5.0       | 2       | 1       |
| 38       | N075       | 1458.80     | 4741.15 | Sungai Malua          | S. Malubuk     | 6          | 3     | 10.0      | 3       | 3       |
| 39       | N064       | 1475.35     | 4746.05 | Sungai Malua          | S. Malua       | 5          | 3     | 5.0       | 2       | 2       |
| 40       | N066       | 1467.55     | 4746.80 | Sungai Malua          | S. Malua       | 6          | 4     | 20.0      | 4       | 3       |
| 41       | K036       | 1464.10     | 4746.85 | Sungai Malua          | S. Malua       | 5          | 4     | 10.0      | 3       | 2       |
| 42       | N065       | 1467.60     | 4746.95 | Sungai Malua          | S. Malua       | 7          | 3     | 5.0       | 3       | 1       |
| 43       | G041       | 1461.05     | 4747.35 | Sungai Malua          | S. Malua       | 3          | 3     | 10.0      | 3       | 1       |
| 44       | G042       | 1460.85     | 4747.60 | Sungai Malua          | S. Malua       | 6          | 3     | 6.0       | 4       | 1       |
| 45       | G043       | 1461.10     | 4747.70 | Sungai Malua          | S. Malua       | 7          | 3     | 5.0       | 3       | 1       |
| 46       | N062       | 1474.35     | 4750.25 | Sungai Malua          | S. Malua       | 16         | 4     | 20.0      | 2       | 2       |
| 47       | N061       | 1474.50     | 4750.40 | Sungai Malua          | S. Malua       | 14         | 2     | 5.0       | 1       | 3       |
| 48       | N060       | 1473.25     | 4750.70 | Sungai Malua          | S. Malua       | 4          | 2     | 5.0       | 2       | 2       |
| 49       | N100       | 1452.20     | 4752.10 | Sungai Malua          | S. Berseh      | 75         | 3     | 8.0       | 3       | 2       |
| 50       | N071       | 1478.50     | 4755.40 | Sungai Malua          | S. Latangan    | 46         | 3     | 10.0      | 4       | 1       |

Stream flow\*1: none (0), puddle (1), slow (2), moderate (3), fast (4)

Grain size\*2: coarse-grained (1), medium-grained (2), fine-grained (3), clayey (4)

| Ser. No. | Sample No. | Coordinates |         | Topographic Map Sheet | Name of Stream | Weight (g) | Order | Width (m) | Flow *1 | Size *2 |
|----------|------------|-------------|---------|-----------------------|----------------|------------|-------|-----------|---------|---------|
|          |            | N           | E       |                       |                |            |       |           |         |         |
| 51       | N070       | 1477.85     | 4756.70 | Sungai Malua          | S. Latangan    | 13         | 3     | 5.0       | 2       | 3       |
| 52       | P025       | 1453.50     | 4756.90 | Sungai Malua          | S. Danum       | 31         | 4     | 6.0       | 4       | 2       |
| 53       | P017       | 1464.00     | 4758.00 | Sungai Malua          | S. Bilong      | 8          | 3     | 5.0       | 3       | 1       |
| 54       | G044       | 1466.65     | 4759.85 | Sungai Malua          | S. Bilong      | 2          | 3     | 3.0       | 2       | 1       |
| 55       | G045       | 1464.90     | 4762.50 | Sungai Bole           | S. Bilong      | 25         | 4     | 6.0       | 3       | 1       |
| 56       | P026       | 1453.85     | 4764.15 | Sungai Bole           | S. Danum       | 5          | 4     | 12.0      | 4       | 1       |
| 57       | N080       | 1467.70     | 4764.50 | Sungai Bole           | S. Klingkawang | 5          | 3     | 8.0       | 3       | 2       |
| 58       | Y028       | 1457.40     | 4765.15 | Sungai Bole           | S. Segama      | 31         | 5     | 25.0      | 3       | 3       |
| 59       | P021       | 1457.45     | 4765.40 | Sungai Bole           | S. Tarangan    | < 1        | 3     | 4.0       | 3       | 2       |
| 60       | N055       | 1472.50     | 4767.45 | Sungai Bole           | S. Belang      | < 1        | 3     | 12.0      | 2       | 3       |
| 61       | G037       | 1472.90     | 4769.05 | Sungai Bole           | S. Segama      | < 1        | 2     | 4.0       | 3       | 1       |
| 62       | G034       | 1460.30     | 4771.85 | Sungai Bole           | S. Bole        | 50         | 5     | 20.0      | 2       | 1       |
| 63       | J042       | 1470.90     | 4772.35 | Sungai Bole           | S. Bole Kechil | < 1        | 3     | 2.0       | 2       | 1       |
| 64       | C041       | 1465.30     | 4773.85 | Sungai Bole           | S. Todto       | 7          | 2     | 5.0       | 2       | 1       |
| 65       | C040       | 1465.15     | 4774.00 | Sungai Bole           | S. Bole        | 359        | 5     | 10.0      | 2       | 1       |
| 66       | C044       | 1470.55     | 4774.50 | Sungai Bole           | S. Bole        | 57         | 5     | 10.0      | 2       | 1       |
| 67       | G036       | 1454.90     | 4775.15 | Sungai Bole           | S. Bole        | 48         | 5     | 5.0       | 2       | 1       |
| 68       | G035       | 1455.05     | 4775.20 | Sungai Bole           | S. Bole        | 46         | 2     | 3.0       | 3       | 1       |
| 69       | P057       | 1469.70     | 4778.30 | Sungai Bole           | S. Longlata    | < 1        | 3     | 1.0       | 4       | 1       |
| 70       | P056       | 1470.00     | 4780.15 | Sungai Bole           | S. Lakanoy     | 75         | 3     | 8.0       | 3       | 2       |
| 71       | J038       | 1453.60     | 4783.40 | Sungai Bole           | S. Kawag       | 393        | 2     | 7.0       | 2       | 1       |
| 72       | J039       | 1453.45     | 4784.15 | Sungai Bole           | S. Kawag       | 12         | 3     | 7.0       | 2       | 1       |
| 73       | G030       | 1458.10     | 4784.25 | Sungai Bole           | S. Kawag       | 33         | 4     | 9.0       | 3       | 1       |
| 74       | K023       | 1458.15     | 4784.45 | Sungai Bole           | S. Kawag       | 21         | 3     | 8.0       | 3       | 1       |
| 75       | K025       | 1460.95     | 4784.65 | Sungai Bole           | S. Kawag       | 48         | 4     | 15.0      | 3       | 3       |
| 76       | P027       | 1478.10     | 4785.20 | Sungai Bole           | S. Koyah       | 4          | 3     | 2.5       | 2       | 2       |
| 77       | Y039       | 1474.55     | 4785.85 | Sungai Bole           | S. Koyah       | 67         | 1     | 4.0       | 2       | 2       |
| 78       | G025       | 1462.60     | 4786.60 | Sungai Bole           | S. Kawag       | 287        | 3     | 5.0       | 4       | 1       |
| 79       | Y041       | 1479.25     | 4787.00 | Sungai Bole           | S. Koyah       | 19         | 4     | 3.0       | 3       | 2       |
| 80       | K026       | 1463.30     | 4787.05 | Sungai Bole           | S. Kawag       | 8          | 4     | 15.0      | 3       | 2       |
| 81       | P010       | 1456.75     | 4789.85 | Mansuli               | S. Kawag       | 14         | 3     | 3.0       | 2       | 1       |
| 82       | G026       | 1459.75     | 4791.85 | Mansuli               | S. Gibong      | 62         | 3     | 5.0       | 4       | 1       |
| 83       | K022       | 1464.60     | 4784.90 | Mansuli               | S. Segama      | 6          | 2     | 5.0       | 2       | 1       |
| 84       | J033       | 1464.50     | 4795.40 | Mansuli               | S. Dapalak     | 88         | 3     | 3.0       | 2       | 1       |
| 85       | N019       | 1464.45     | 4799.40 | Mansuli               | S. Pongrakan   | 55         | 2     | 1.0       | 3       | 3       |
| 86       | K011       | 1453.35     | 4801.35 | Mansuli               | S. Taliwas     | 200        | 4     | 10.0      | 2       | 1       |
| 87       | K010       | 1453.95     | 4802.30 | Mansuli               | S. Taliwas     | 42         | 3     | 6.0       | 2       | 2       |
| 88       | C031       | 1466.85     | 4804.00 | Mansuli               | S. Merisuri    | 18         | 3     | 10.0      | 2       | 2       |
| 89       | N067       | 1465.60     | 4805.70 | Mansuli               | S. Upak        | 87         | 2     | 8.0       | 1       | 3       |
| 90       | P004       | 1452.95     | 4808.65 | Mansuli               | S. Sepagaya    | 4          | 3     | 5.0       | 3       | 1       |
| 91       | C019       | 1458.35     | 4811.20 | Mansuli               | S. Taliwas     | 127        | 4     | 10.0      | 4       | 2       |
| 92       | C017       | 1461.85     | 4813.20 | Mansuli               | S. Taliwas     | 40         | 4     | 5.0       | 3       | 2       |
| 93       | K005       | 1454.00     | 4815.35 | Mansuli               | S. Sepagaya    | 25         | 1     | 5.0       | 2       | 2       |
| 94       | P075       | 1440.20     | 4710.65 | Gunong Moritok        | S. Pasogod     | < 1        | 2     | 5.0       | 4       | 2       |
| 95       | P076       | 1440.35     | 4712.00 | Gunong Moritok        | S. Imbak       | < 1        | 5     | 10.0      | 4       | 1       |
| 96       | P070       | 1449.60     | 4712.35 | Gunong Moritok        | S. Laburawan   | < 1        | 4     | 7.0       | 4       | 1       |
| 97       | P071       | 1448.95     | 4712.65 | Gunong Moritok        | S. Nagasan     | < 1        | 3     | 6.0       | 3       | 2       |
| 98       | J056       | 1440.55     | 4715.00 | Gunong Moritok        | S. Imbak       | 2          | 4     | 3.0       | 2       | 1       |
| 99       | G055       | 1430.45     | 4716.50 | Gunong Moritok        | S. Imbak       | 5          | 3     | 15.0      | 3       | 1       |
| 100      | C057       | 1438.35     | 4719.30 | Gunong Moritok        | S. Imbak       | 3          | 4     | 10.0      | 2       | 1       |

Stream flow\*1: none(0), puddle(1), slow(2), moderate(3), fast(4)

Grain size\*2: coarse-grained(1), medium-grained(2), fine-grained(3), clayey(4)

| Ser. No. | Sample No. | Coordinates |         | Topographic Map Sheet | Name of Stream | Weight (g) | Order | Width (m) | Flow *1 | Size *2 |
|----------|------------|-------------|---------|-----------------------|----------------|------------|-------|-----------|---------|---------|
|          |            | N           | E       |                       |                |            |       |           |         |         |
| 101      | K051       | 1437.70     | 4722.45 | Gunong Moritok        | S. Imbak       | 5          | 5     | 8.0       | 2       | 1       |
| 102      | K052       | 1437.00     | 4724.65 | Gunong Moritok        | S. Imbak       | 3          | 4     | 5.0       | 4       | 1       |
| 103      | C056       | 1450.90     | 4725.65 | Gunong Moritok        | S. Sangitan    | 3          | 4     | 5.0       | 2       | 1       |
| 104      | K056       | 1441.60     | 4727.95 | Gunong Moritok        | S. Imbak       | 7          | 4     | 5.0       | 3       | 2       |
| 105      | K050       | 1439.00     | 4738.85 | Ulu Segama            | S. Danum       | 7          | 3     | 6.0       | 2       | 2       |
| 106      | K039       | 1451.40     | 4739.60 | Ulu Segama            | S. Malubuk     | 6          | 4     | 5.0       | 4       | 1       |
| 107      | N083       | 1445.00     | 4740.45 | Ulu Segama            | S. Karangan    | 5          | 3     | 4.0       | 3       | 1       |
| 108      | N081       | 1446.00     | 4742.70 | Ulu Segama            | S. Karangan    | 2          | 3     | 10.0      | 3       | 3       |
| 109      | N082       | 1445.90     | 4742.90 | Ulu Segama            | S. Danum       | 6          | 4     | 10.0      | 2       | 3       |
| 110      | K049       | 1447.35     | 4743.35 | Ulu Segama            | S. Danum       | 4          | 3     | 7.0       | 3       | 2       |
| 111      | N092       | 1443.90     | 4743.60 | Ulu Segama            | S. Danum       | 60         | 2     | 6.0       | 1       | 1       |
| 112      | K047       | 1447.65     | 4747.30 | Ulu Segama            | S. Danum       | 5          | 2     | 10.0      | 3       | 1       |
| 113      | K048       | 1447.40     | 4747.20 | Ulu Segama            | S. Danum       | 10         | 4     | 15.0      | 2       | 3       |
| 114      | N096       | 1446.90     | 4753.15 | Ulu Segama            | S. Danum       | 8          | 2     | 10.0      | 3       | 1       |
| 115      | Y063       | 1432.30     | 4746.10 | Ulu Segama            | S. Segama      | 25         | 4     | 7.0       | 4       | 1       |
| 116      | Y064       | 1432.05     | 4746.10 | Ulu Segama            | S. Beestone    | 14         | 4     | 5.0       | 3       | 1       |
| 117      | P053       | 1439.55     | 4749.00 | Ulu Segama            | S. Beatrice    | 10         | 3     | 4.0       | 3       | 2       |
| 118      | P052       | 1439.60     | 4750.15 | Ulu Segama            | S. Beatrice    | 17         | 3     | 3.0       | 3       | 1       |
| 119      | K045       | 1445.75     | 4751.45 | Ulu Segama            | S. Danum       | 6          | 3     | 6.0       | 3       | 2       |
| 120      | K046       | 1446.00     | 4751.45 | Ulu Segama            | S. Danum       | 12         | 4     | 15.0      | 3       | 3       |
| 121      | P051       | 1437.75     | 4751.50 | Ulu Segama            | S. Beatrice    | 7          | 4     | 5.0       | 4       | 1       |
| 122      | P050       | 1437.45     | 4751.85 | Ulu Segama            | S. Segama      | 28         | 5     | 8.0       | 3       | 1       |
| 123      | J048       | 1434.80     | 4752.10 | Ulu Segama            | S. Segama      | 67         | 5     | 6.0       | 2       | 1       |
| 124      | J049       | 1434.65     | 4752.45 | Ulu Segama            | S. Surprise    | 58         | 4     | 4.0       | 2       | 1       |
| 125      | Y046       | 1429.85     | 4752.85 | Ulu Segama            | S. Surprise    | 9          | 4     | 5.0       | 3       | 2       |
| 126      | J053       | 1431.90     | 4753.70 | Ulu Segama            | S. Surprise    | 102        | 3     | 4.0       | 2       | 1       |
| 127      | P048       | 1440.00     | 4755.80 | Ulu Segama            | S. Segama      | 14         | 3     | 4.0       | 4       | 2       |
| 128      | J047       | 1438.65     | 4757.50 | Ulu Segama            | S. Segama      | 73         | 2     | 3.0       | 2       | 1       |
| 129      | J046       | 1435.75     | 4758.70 | Ulu Segama            | S. Segama      | 46         | 5     | 10.0      | 2       | 1       |
| 130      | J045       | 1434.70     | 4761.15 | Sungai Ulu Bole       | S. Segama      | 61         | 5     | 10.0      | 2       | 1       |
| 131      | J044       | 1434.60     | 4761.35 | Sungai Ulu Bole       | S. Rashida     | 137        | 4     | 3.0       | 2       | 1       |
| 132      | K033       | 1443.75     | 4763.00 | Sungai Ulu Bole       | S. Segama      | 10         | 3     | 8.0       | 3       | 3       |
| 133      | K032       | 1443.70     | 4763.25 | Sungai Ulu Bole       | S. Segama      | 60         | 5     | 7.0       | 4       | 3       |
| 134      | P028       | 1450.05     | 4753.50 | Sungai Ulu Bole       | S. Purut       | 7          | 3     | 5.0       | 4       | 1       |
| 135      | Y070       | 1437.00     | 4764.40 | Sungai Ulu Bole       | S. Segama      | 51         | 5     | 30.0      | 4       | 2       |
| 136      | K034       | 1440.30     | 4764.50 | Sungai Ulu Bole       | S. Segama      | 4          | 3     | 7.0       | 3       | 1       |
| 137      | P043       | 1437.15     | 4764.85 | Sungai Ulu Bole       | S. Beruang     | 30         | 4     | 6.0       | 4       | 2       |
| 138      | P044       | 1436.45     | 4766.10 | Sungai Ulu Bole       | S. Pasir       | 11         | 4     | 5.0       | 4       | 1       |
| 139      | P029       | 1448.95     | 4766.25 | Sungai Ulu Bole       | S. Segama      | 33         | 5     | 25.0      | 4       | 2       |
| 140      | P037       | 1431.35     | 4768.15 | Sungai Ulu Bole       | S. Begonia     | 13         | 3     | 6.0       | 4       | 2       |
| 141      | P036       | 1431.45     | 4768.50 | Sungai Ulu Bole       | S. Mabok       | 12         | 3     | 5.0       | 3       | 2       |
| 142      | Y045       | 1447.35     | 4772.70 | Sungai Ulu Bole       | S. Bole        | 25         | 3     | 4.0       | 2       | 2       |
| 143      | N021       | 1440.65     | 4773.95 | Sungai Ulu Bole       | S. Ulu Bole    | 38         | 3     | 5.0       | 3       | 2       |
| 144      | K029       | 1440.70     | 4774.20 | Sungai Ulu Bole       | S. Ulu Bole    | 67         | 2     | 3.0       | 3       | 3       |
| 145      | J028       | 1440.70     | 4774.85 | Sungai Ulu Bole       | S. Ulu Bole    | 30         | 2     | 3.0       | 2       | 1       |
| 146      | G010       | 1451.40     | 4774.95 | Sungai Ulu Bole       | S. Bole        | 5          | 3     | 4.0       | 3       | 1       |
| 147      | G005       | 1449.85     | 4776.30 | Sungai Ulu Bole       | S. Bole        | 95         | 5     | 9.0       | 2       | 1       |
| 148      | K020       | 1443.90     | 4776.70 | Sungai Ulu Bole       | S. Ulu Bole    | 55         | 3     | 8.0       | 3       | 1       |
| 149      | K019       | 1444.00     | 4776.85 | Sungai Ulu Bole       | S. Ulu Bole    | 88         | 4     | 7.0       | 3       | 1       |
| 150      | Y022       | 1445.45     | 4777.20 | Sungai Ulu Bole       | S. Juak        | 84         | 4     | 8.0       | 2       | 2       |

Stream flow\*1: none (0), puddle (1), slow (2), moderate (3), fast (4)

Grain size\*2: coarse-grained (1), medium-grained (2), fine-grained (3), clayey (4)

| Ser. No. | Sample No. | Coordinates |         | Topographic Map Sheet | Name of Stream   | Weight (g) | Order | Width (m) | Flow *1 | Size *2 |
|----------|------------|-------------|---------|-----------------------|------------------|------------|-------|-----------|---------|---------|
|          |            | N           | E       |                       |                  |            |       |           |         |         |
| 151      | K027       | 1435.90     | 4781.90 | Sungai Ulu Bole       | S. Juak          | 80         | 3     | 10.0      | 4       | 1       |
| 152      | J015       | 1443.05     | 4782.70 | Sungai Ulu Bole       | S. Juak          | 161        | 4     | 7.0       | 2       | 1       |
| 153      | J022       | 1437.30     | 4783.90 | Sungai Ulu Bole       | S. Juak          | 94         | 4     | 5.0       | 2       | 1       |
| 154      | J023       | 1437.20     | 4784.15 | Sungai Ulu Bole       | S. Sinsulog      | 8          | 2     | 4.0       | 2       | 1       |
| 155      | K018       | 1441.50     | 4787.50 | Sungai Ulu Bole       | S. Juak          | 9          | 4     | 6.0       | 2       | 3       |
| 156      | K017       | 1441.55     | 4787.60 | Sungai Ulu Bole       | S. Juak          | 149        | 3     | 6.0       | 2       | 3       |
| 157      | C023       | 1442.50     | 4790.45 | Silam                 | S. Lunkasa       | 40         | 3     | 3.0       | 2       | 1       |
| 158      | G017       | 1441.80     | 4791.10 | Silam                 | S. Lunkasa       | 99         | 2     | 3.0       | 2       | 1       |
| 159      | G004       | 1437.05     | 4793.30 | Silam                 | S. Takun         | < 1        | 3     | 4.0       | 3       | 1       |
| 160      | G003       | 1436.90     | 4793.50 | Silam                 | S. Takun         | 4          | 3     | 5.0       | 3       | 1       |
| 161      | G016       | 1432.45     | 4794.55 | Silam                 | S. Takun         | 1          | 3     | 5.0       | 3       | 1       |
| 162      | Y014       | 1445.75     | 4798.30 | Silam                 | S. Diwata        | 206        | 3     | 6.0       | 3       | 2       |
| 163      | P002       | 1434.00     | 4798.40 | Silam                 | S. Dadong Kechil | 1          | 2     | 1.5       | 1       | 1       |
| 164      | G002       | 1437.00     | 4798.55 | Silam                 | S. Sabahan       | 4          | 4     | 5.0       | 3       | 1       |
| 165      | K009       | 1450.75     | 4799.10 | Silam                 | S. Taliwas       | 91         | 3     | 5.0       | 2       | 1       |
| 166      | C010       | 1439.25     | 4800.95 | Silam                 | S. Divatu        | 19         | 3     | 20.0      | 2       | 4       |
| 167      | Y009       | 1443.85     | 4801.20 | Silam                 | S. Diwata        | 149        | 3     | 12.0      | 3       | 2       |
| 168      | P001       | 1435.15     | 4801.25 | Silam                 | S. Dadong Kechil | 2          | 2     | 10.0      | 2       | 4       |
| 169      | G001       | 1436.65     | 4801.55 | Silam                 | S. Sabahan       | 4          | 4     | 5.0       | 2       | 1       |
| 170      | Y003       | 1443.70     | 4802.25 | Silam                 | S. Diwata        | 7          | 2     | 4.0       | 3       | 1       |
| 171      | Y001       | 1440.80     | 4804.90 | Silam                 | S. Diwata        | 60         | 3     | 10.0      | 2       | 2       |
| 172      | K004       | 1444.41     | 4807.50 | Silam                 | —                | 7          | 2     | 2.0       | 3       | 1       |
| 173      | J006       | 1445.50     | 4808.25 | Silam                 | —                | 2          | 2     | 4.0       | 2       | 1       |
| 174      | J001       | 1447.70     | 4810.25 | Silam                 | —                | 9          | 2     | 2.0       | 2       | 1       |
| 175      | C003       | 1449.25     | 4810.60 | Silam                 | —                | 5          | 2     | 2.0       | 2       | 1       |

Stream flow\*1: none(0), puddle(1), slow(2), moderate(3), fast(4)

Grain size\*2: coarse-grained(1), medium-grained(2), fine-grained(3), clayey(4)

Appendix 7

Results of qualitative mineral examination  
of pan concentrates in the Segama area





| Ser. No. | Sample No. | Native gold | Magnetite | Chromite | Spinel | Hematite | Ilmenite | Leucosene | Rutile | Brookite | Anatase | Cassiterite | Scheelite | Pyrite | Goethite | Chalcopyrite | Bornite | Olivine | Augite | Hypersthene | Hornblende | Actinolite | Clinozoisite | Tourmaline | Garnet | Zircon | Monazite | Quartz | Plagioclase | Clastics | Calcite |    |    |
|----------|------------|-------------|-----------|----------|--------|----------|----------|-----------|--------|----------|---------|-------------|-----------|--------|----------|--------------|---------|---------|--------|-------------|------------|------------|--------------|------------|--------|--------|----------|--------|-------------|----------|---------|----|----|
| 1        | P074       |             | 1         | 3        |        |          | 1        | Tr        |        |          |         |             |           |        |          |              |         |         | Tr     | Tr          |            |            |              |            |        | Tr     | 85       | 10     |             |          |         |    |    |
| 2        | P069       |             | Tr        |          |        |          |          |           |        |          |         |             |           |        | Tr       |              |         |         |        |             |            |            |              |            |        | Tr     | 00       | Tr     |             |          |         |    |    |
| 3        | P068       |             | 1         | Tr       |        |          | Tr       |           | Tr     |          |         |             |           |        | Tr       |              |         |         |        |             |            |            |              |            |        | Tr     | 00       | Tr     |             |          |         |    |    |
| 4        | Y060       |             | 2         | 1        |        |          | Tr       | Tr        | Tr     |          |         |             |           |        | 1        |              |         |         |        |             |            |            |              |            | Tr     | 92     | Tr       | 1      |             |          |         |    |    |
| 5        | Y058       |             | 3         | 1        |        |          | 4        | Tr        | Tr     |          |         |             |           |        | Tr       |              |         |         |        | Tr          | Tr         |            |              |            | Tr     | 10     | Tr       | 82     | Tr          |          |         |    |    |
| 6        | Y059       | Tr          | 9         | 4        |        |          | 10       | Tr        | Tr     |          |         |             |           |        | 1        |              |         |         | Tr     | 1           | Tr         |            |              |            | Tr     | 1      | Tr       | 73     | 1           |          |         |    |    |
| 7        | Y057       |             | 5         | 1        |        |          | 6        |           | Tr     |          |         |             |           |        | Tr       |              |         |         |        | 1           | Tr         |            |              |            | Tr     | 1      | Tr       | 84     | 3           |          |         |    |    |
| 8        | Y061       |             |           | 3        |        |          | 1        |           |        |          |         |             |           | 3      | Tr       |              |         |         |        | Tr          | Tr         |            |              | Tr         | Tr     | 15     | Tr       | 78     | Tr          |          | Tr      |    |    |
| 9        | C053       |             | 23        | 12       |        |          | 23       |           |        |          |         |             |           |        | Tr       |              |         |         |        | 9           | Tr         |            | 2            |            | Tr     | Tr     | 16       | 9      |             |          |         |    |    |
| 10       | C054       |             | 10        | 19       |        |          | 13       | Tr        | Tr     | Tr       |         |             |           | 4      | Tr       |              |         |         |        |             |            |            |              |            | Tr     | Tr     | 53       | Tr     |             |          |         |    |    |
| 11       | C055       |             | 12        | 37       | Tr     |          | 25       | Tr        | Tr     |          |         |             |           |        | Tr       |              |         |         |        |             |            |            |              |            | 2      | 1      | Tr       | 20     | 3           |          | Tr      |    |    |
| 12       | Y055       |             | 2         | Tr       |        |          | Tr       |           |        |          |         |             |           |        | Tr       |              |         |         |        |             |            |            |              |            |        | Tr     | 98       | Tr     |             |          |         |    |    |
| 13       | C052       |             | 24        | 24       |        |          | 23       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         | Tr      |        | 3           | Tr         |            |              |            | Tr     | Tr     | 20       | 4      |             |          |         |    |    |
| 14       | C048       |             | 28        | 3        |        |          | 13       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         |        | Tr          | Tr         |            |              |            | Tr     | Tr     | 53       | Tr     |             |          | Tr      |    |    |
| 15       | Y056       |             | 13        | 1        |        |          | 5        | Tr        | Tr     |          |         | Tr          |           | Tr     | Tr       |              |         |         |        | Tr          | Tr         |            |              |            | Tr     | Tr     | 77       | Tr     |             |          | Tr      |    |    |
| 16       | Y051       |             | 11        | 1        |        |          | 15       | Tr        | Tr     |          |         |             |           |        | Tr       |              |         |         |        | Tr          | Tr         | 1          | Tr           |            | Tr     | Tr     | 71       | 1      |             |          | Tr      |    |    |
| 17       | Y050       |             | 2         | Tr       |        |          | Tr       |           |        |          |         |             |           |        | Tr       |              |         |         |        | Tr          | Tr         |            |              |            | Tr     | Tr     | 93       | 5      |             |          | Tr      |    |    |
| 18       | C051       |             | 18        | 1        |        |          | 34       | Tr        |        |          |         |             |           |        | Tr       |              |         |         |        | 2           | 6          |            |              |            | Tr     | Tr     | 34       | 5      |             |          | Tr      |    |    |
| 19       | C050       |             | 33        | 4        |        |          | 29       | Tr        |        |          |         |             |           |        | 1        |              |         |         |        | 10          | Tr         |            |              |            | Tr     | Tr     | 17       | 4      |             |          | Tr      |    |    |
| 20       | Y052       |             | 8         | 50       |        |          | 22       | Tr        | Tr     |          |         |             |           |        | Tr       |              |         | Tr      |        | 1           | Tr         |            |              |            | Tr     | Tr     | 20       | Tr     |             |          | Tr      |    |    |
| 21       | Y053       |             | 20        | 15       |        |          | 34       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          | Tr         | Tr         | Tr           |            | 1      | Tr     | 29       | 1      |             |          | Tr      |    |    |
| 22       | P066       |             |           |          |        |          |          | 3         |        |          |         |             |           |        | Tr       |              |         |         |        |             |            |            |              |            |        |        | 48       | Tr     | 49          |          |         | Tr |    |
| 23       | C049       |             | 12        | 4        |        |          | 33       |           |        |          |         |             |           |        |          |              | Tr      |         | 3      | 21          | Tr         | Tr         | 2            | Tr         |        |        | 13       | 10     |             |          | Tr      |    |    |
| 24       | P067       |             |           |          |        |          |          | 3         |        |          |         |             |           |        | Tr       |              |         |         |        |             |            |            |              |            |        |        |          | Tr     |             |          |         | 97 | Tr |
| 25       | G052       |             | 22        | 4        |        |          | 42       |           | Tr     |          |         |             |           |        | 2        |              |         |         | 5      | 12          |            |            | Tr           |            |        |        | 8        | 5      |             |          | Tr      |    |    |
| 26       | G051       |             | 31        | 5        |        |          | 32       | Tr        | Tr     |          |         |             |           | Tr     | 1        |              |         |         | 5      | 8           | Tr         | Tr         | Tr           |            | Tr     | Tr     | 14       | 4      |             |          | Tr      |    |    |
| 27       | G050       |             | 19        | 5        |        |          | 25       | Tr        |        |          |         |             |           |        | 3        |              |         |         | 11     | 6           |            | 1          | Tr           |            | Tr     | Tr     | 24       | 6      |             |          | Tr      |    |    |
| 28       | Y049       |             | 15        | 50       |        |          | 17       | Tr        | Tr     |          |         |             |           |        |          |              |         |         | Tr     | Tr          |            | Tr         | Tr           |            | Tr     | Tr     | 15       | 2      |             |          | Tr      |    |    |
| 29       | Y048       |             | 19        | 11       |        |          | 15       |           | Tr     |          |         |             |           |        | Tr       |              |         |         |        | 7           |            | 1          | Tr           |            | Tr     | Tr     | 42       | 2      |             |          | Tr      |    |    |
| 30       | G048       |             | 28        | 43       | Tr     |          | 21       |           | Tr     |          |         |             |           |        | Tr       |              |         |         | 1      | 1           | Tr         | Tr         | Tr           |            | Tr     | Tr     | 5        | 1      |             |          | Tr      |    |    |
| 31       | Y047       |             | 7         | 7        |        |          | 5        | Tr        | Tr     |          |         |             |           |        | Tr       |              |         |         | Tr     | 1           | Tr         | Tr         |              |            |        |        | 80       |        |             |          |         | Tr |    |
| 32       | C047       |             | 11        | 15       |        |          | 23       | Tr        |        |          |         |             |           |        | Tr       |              |         |         | 11     | 12          | 3          | Tr         | Tr           | Tr         |        |        | 20       | 5      |             |          | Tr      |    |    |
| 33       | G046       |             | 38        | 12       |        |          | 44       | Tr        |        |          |         |             |           |        | Tr       |              |         |         | 1      | 3           | 1          | Tr         | Tr           | Tr         | Tr     | Tr     | 1        | Tr     |             |          |         | Tr |    |
| 34       | K042       |             | 19        | 37       |        |          | 35       |           |        |          |         |             |           |        | Tr       |              |         |         | Tr     | 5           | 1          | Tr         | Tr           |            | Tr     | Tr     | 2        | 1      |             |          |         | Tr |    |
| 35       | G047       |             | 15        | 36       |        |          | 21       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         | 3      | 1           | 5          |            | 2            | Tr         | Tr     | Tr     | 4        | 13     |             |          | Tr      |    |    |
| 36       | C045       |             | 25        | 14       |        |          | 28       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | 3      | 11          | 2          |            | Tr           |            | Tr     | Tr     | 4        | 12     |             |          | Tr      |    |    |
| 37       | C046       |             | 25        | 6        |        |          | 7        | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          |            | Tr         |              |            | Tr     | 1      | 15       | Tr     |             |          | Tr      |    |    |
| 38       | N075       |             | 13        | 18       |        | 10       | 23       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | 1      | 3           | 8          |            |              | Tr         | Tr     | Tr     | 8        | 13     |             |          | Tr      |    |    |
| 39       | N064       |             | 21        | 11       |        |          | 17       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          |            | Tr         |              |            | Tr     | 1      | 10       | Tr     |             |          | Tr      |    |    |
| 40       | N066       |             | 14        | 33       | Tr     |          | 22       |           | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | 3           | Tr         |            | 1            |            | Tr     | Tr     | 4        | 22     | Tr          |          |         | Tr |    |
| 41       | K036       |             | 14        | 17       |        |          | 27       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         | 3      | 4           | Tr         |            | Tr           |            | Tr     | Tr     | 31       | 3      |             |          | Tr      |    |    |
| 42       | N065       |             | 13        | 71       |        |          | 8        | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | 2           | 3          | Tr         |              | Tr         | Tr     | Tr     | 8        | Tr     |             |          | Tr      |    |    |
| 43       | G041       |             | 10        | 11       |        |          | 4        |           |        |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | 2           | 2          | Tr         |              | Tr         | Tr     | Tr     | 66       | 3      |             |          | Tr      |    |    |
| 44       | G042       |             | 15        | 37       | Tr     |          | 16       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | 1      | 2           | Tr         |            |              |            | Tr     | Tr     | 26       | 1      |             |          | Tr      |    |    |
| 45       | G043       |             | 14        | 24       |        |          | 12       |           | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | 1      | 1           |            |            | Tr           |            | Tr     | Tr     | 46       |        |             |          | Tr      |    |    |
| 46       | N062       |             | 19        | 40       | Tr     |          | 23       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         | 2      | 2           | Tr         | Tr         | 1            | Tr         | Tr     | Tr     | 10       | 2      |             |          | Tr      |    |    |
| 47       | N061       |             | 11        | 57       |        |          | 27       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          |            |            |              |            | Tr     | Tr     | 4        | Tr     |             |          | Tr      |    |    |
| 48       | N060       |             | 17        | 6        |        |          | 15       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         | 1      | 1           | Tr         | Tr         | Tr           | Tr         | Tr     | Tr     | 57       | 3      |             |          | Tr      |    |    |
| 49       | N100       |             | 24        | 5        |        |          | 30       |           |        |          |         |             |           |        | 1        |              |         |         | 1      | 39          | Tr         | Tr         |              |            | Tr     | Tr     | Tr       | Tr     |             |          |         | Tr |    |
| 50       | N071       |             | 20        | 44       |        |          | 26       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          |            |            |              |            | Tr     | Tr     | 10       | Tr     |             |          |         | Tr |    |

| Ser. No. | Sample No. | Native gold | Magnetite | Chromite | Spinel | Hematite | Ilmenite | Leucosene | Rutile | Brookite | Anatase | Cassiterite | Scheelite | Pyrite | Goethite | Chalcopyrite | Bornite | Olivine | Augite | Hypersthene | Hornblende | Actinolite | Clinozoisite | Tourmaline | Garnet | Zircon | Monazite | Quartz | Plagioclase | Clastics | Calcite |  |
|----------|------------|-------------|-----------|----------|--------|----------|----------|-----------|--------|----------|---------|-------------|-----------|--------|----------|--------------|---------|---------|--------|-------------|------------|------------|--------------|------------|--------|--------|----------|--------|-------------|----------|---------|--|
| 51       | N070       |             | 23        | 42       |        |          | 27       |           | Tr     | Tr       | Tr      |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          | Tr         |            | Tr           | Tr         | Tr     |        | 8        | Tr     |             |          |         |  |
| 52       | P025       |             | 23        | 8        |        |          | 23       |           | Tr     |          |         |             |           | Tr     | Tr       |              |         |         | 6      | 19          | Tr         |            | 6            | Tr         | Tr     | Tr     |          | 12     | Tr          | 3        |         |  |
| 53       | P017       |             | 16        | 48       |        |          | 35       |           |        |          |         |             |           | Tr     | Tr       |              |         |         | Tr     | 1           | Tr         |            | Tr           | Tr         | Tr     |        | Tr       | Tr     |             |          |         |  |
| 54       | G044       |             | 8         | 7        |        |          | 14       |           |        |          |         |             |           |        | 1        |              |         |         | Tr     | Tr          |            |            |              | Tr         | Tr     |        | 66       | Tr     | 4           |          |         |  |
| 55       | G045       |             | 15        | 30       |        |          | 30       |           |        |          |         |             |           |        | Tr       |              |         |         | 3      | 5           |            |            | Tr           | Tr         | Tr     |        | 16       | Tr     | 1           |          |         |  |
| 56       | P026       |             | 30        | 3        |        |          | 22       |           |        |          |         |             |           | 1      |          |              |         |         | 1      | 33          | 1          |            | Tr           | Tr         | Tr     |        | 4        | Tr     | 6           |          |         |  |
| 57       | N080       |             | 16        | 11       |        | Tr       | 26       |           | Tr     | Tr       | Tr      |             |           | Tr     | 3        |              |         |         | 1      | Tr          |            |            | Tr           | Tr         | Tr     |        | 37       | Tr     | 6           |          |         |  |
| 58       | Y028       | Tr          | 52        | 29       |        |          | 15       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         | 1      | Tr          | Tr         | Tr         | 1            | Tr         | Tr     |        | 1        | Tr     |             |          |         |  |
| 59       | P021       |             | 4         | 1        |        |          | 5        |           |        |          |         |             |           |        | Tr       |              |         |         | 4      | 4           | Tr         |            |              |            |        |        | 69       | Tr     | 13          |          |         |  |
| 60       | N055       |             | 35        | 3        |        | Tr       | 15       |           |        |          |         |             |           | Tr     | Tr       |              |         |         |        |             |            |            |              | Tr         |        |        | 47       |        |             |          |         |  |
| 61       | G037       |             | 82        | 1        |        |          | 1        | Tr        |        |          |         |             |           | Tr     | Tr       |              |         |         |        |             | Tr         |            |              | Tr         |        |        | 16       |        |             |          |         |  |
| 62       | G034       |             | 34        | 25       |        |          | 37       |           |        |          |         |             |           |        | Tr       |              |         |         | Tr     | Tr          | 1          |            | 2            | Tr         | Tr     | Tr     | Tr       | Tr     | 1           |          |         |  |
| 63       | J042       |             | 13        | 1        |        |          | 27       | 1         |        |          |         |             |           |        | 1        |              |         |         | Tr     | Tr          | Tr         |            | Tr           | Tr         | Tr     |        | 49       | Tr     |             |          |         |  |
| 64       | C041       |             | 17        | 51       |        |          | 29       | Tr        |        |          |         |             |           | Tr     | 1        |              |         | Tr      | Tr     | Tr          | Tr         |            | Tr           | Tr         | Tr     |        | Tr       | Tr     |             |          |         |  |
| 65       | C040       |             | 43        | 11       |        |          | 45       |           |        |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | Tr         | Tr         | Tr           | Tr         | Tr     |        | Tr       | Tr     |             |          |         |  |
| 66       | C044       |             | 17        | 25       |        |          | 53       | Tr        |        |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | Tr         | Tr         | Tr           | Tr         | Tr     |        | Tr       | Tr     |             |          |         |  |
| 67       | G036       |             | 42        | 21       |        |          | 33       | Tr        |        |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | 2          | 2          | Tr           | Tr         | Tr     |        | Tr       | Tr     |             |          |         |  |
| 68       | G035       |             | 76        | 1        |        |          | 17       |           |        |          |         |             |           |        | 1        |              |         | Tr      | Tr     | Tr          | 2          | 2          | 1            |            |        |        | 1        | Tr     | 1           |          |         |  |
| 69       | P057       |             | 8         | 2        |        |          | 3        |           |        |          |         |             |           |        | Tr       |              |         | 2       | Tr     | Tr          | 3          |            | 1            |            | Tr     |        | 53       | Tr     | 28          |          |         |  |
| 70       | P056       |             | 67        | 4        |        |          | 18       |           |        |          |         |             |           |        | Tr       |              |         | 6       | 2      | 2           | 1          |            | 1            | Tr         | Tr     |        | 1        | Tr     |             |          |         |  |
| 71       | J038       |             | 35        | 19       |        |          | 40       |           |        |          |         |             |           |        | Tr       |              |         | 1       | 1      | 1           |            |            | 1            |            |        |        | 1        | Tr     | 1           |          |         |  |
| 72       | J039       |             | 67        | 4        |        |          | 27       |           |        |          |         |             |           | Tr     | Tr       |              |         | Tr      |        | Tr          |            |            | 1            | Tr         | Tr     | Tr     | Tr       | Tr     | 1           |          |         |  |
| 73       | G030       |             | 50        | 11       |        |          | 34       |           |        |          |         |             |           | Tr     | Tr       |              |         | 1       | Tr     | Tr          | 1          |            | 1            | Tr         | Tr     | Tr     | Tr       | Tr     | 1           |          |         |  |
| 74       | K023       |             | 52        | 9        |        |          | 29       |           |        |          |         |             |           |        | Tr       |              |         | 1       | Tr     | Tr          | 2          |            | 5            | Tr         | Tr     | Tr     | Tr       | Tr     | 1           |          |         |  |
| 75       | K025       |             | 59        | 9        |        |          | 24       |           |        |          |         |             |           |        | Tr       |              |         | 1       | Tr     | Tr          | 3          |            | 3            | Tr         | Tr     | Tr     | Tr       | Tr     | Tr          |          |         |  |
| 76       | P027       |             | 21        | 28       |        |          | 12       | Tr        |        |          |         |             |           |        | 1        |              |         | 1       | 2      | Tr          | Tr         |            | Tr           | Tr         | Tr     |        | 26       | Tr     | 1           |          |         |  |
| 77       | Y039       |             | 5         | 76       |        |          | 14       |           |        |          |         |             |           | Tr     | Tr       |              |         | Tr      | 1      | Tr          |            |            | Tr           | Tr         | Tr     |        | 4        | Tr     |             |          |         |  |
| 78       | G025       |             | 75        | 2        |        |          | 3        |           |        |          |         |             |           |        | Tr       |              |         | 2       | 2      | 1           | 1          |            | 4            | Tr         | Tr     | Tr     | Tr       | 9      | Tr          | 2        |         |  |
| 79       | Y041       |             | 10        | 60       |        |          | 23       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         | Tr      | Tr     | 1           | 1          |            | Tr           | Tr         | Tr     |        | 3        | Tr     |             |          |         |  |
| 80       | K026       |             | 53        | 3        |        |          | 16       |           |        |          |         |             |           |        | Tr       |              |         | 1       | 1      | 7           |            |            | 9            | Tr         | Tr     |        | 8        | Tr     | 2           |          |         |  |
| 81       | P010       |             | 59        | 13       |        |          | 22       |           | Tr     |          |         |             |           |        | 1        |              |         | Tr      | Tr     | Tr          |            |            | 2            | Tr         | Tr     |        | 2        | Tr     | 1           |          |         |  |
| 82       | G026       |             | 77        | 6        |        |          | 3        |           |        |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | 1          |            | 2            | Tr         | Tr     | Tr     | Tr       | 10     | Tr          |          |         |  |
| 83       | K022       |             | 58        | 10       |        |          | 14       |           |        |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | 5          | Tr         | 2            | Tr         | Tr     | Tr     | Tr       | 10     | Tr          |          |         |  |
| 84       | J033       |             | 65        | 5        |        |          | 8        |           |        |          |         |             |           |        | Tr       |              |         | 1       | 2      | 6           |            |            | 2            | Tr         | Tr     | Tr     | Tr       | 5      | Tr          |          |         |  |
| 85       | N019       |             | 56        | 2        |        |          | 2        |           |        |          |         |             |           |        | 1        |              |         |         | 22     | 22          |            |            | 9            | Tr         | Tr     | Tr     | Tr       | 7      | Tr          |          |         |  |
| 86       | K011       |             | 26        | 19       |        |          | 52       |           |        |          |         |             |           |        | 1        |              |         | 1       | 1      | Tr          | Tr         |            | 1            | Tr         | Tr     | Tr     | Tr       | Tr     | Tr          |          |         |  |
| 87       | K010       |             | 64        | 8        |        |          | 27       |           |        |          |         |             |           | Tr     | Tr       |              |         | Tr      | 1      |             | Tr         |            | Tr           | Tr         | Tr     | Tr     | Tr       | Tr     | Tr          |          |         |  |
| 88       | C031       |             | 16        | 54       |        |          | 21       |           | Tr     |          | Tr      |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | Tr         |            | Tr           | Tr         | Tr     | Tr     | Tr       | 8      | Tr          |          |         |  |
| 89       | N067       |             | 24        | 7        |        |          | 6        |           |        |          |         |             |           |        |          |              |         |         |        |             | 34         |            | 11           |            |        |        | Tr       | 12     | Tr          | 6        |         |  |
| 90       | P004       |             | 26        | 46       |        |          | 7        |           |        |          |         |             |           | Tr     | 1        |              |         | 5       | 1      | 3           | Tr         |            | 4            | Tr         |        |        | 5        | Tr     | 2           |          |         |  |
| 91       | C019       |             | 63        | 21       |        |          | 14       |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          |            |            | 1            | Tr         | Tr     | Tr     | Tr       | Tr     | Tr          |          |         |  |
| 92       | C017       |             | 46        | 22       |        |          | 30       |           |        |          |         |             |           | Tr     | Tr       |              |         | Tr      | Tr     | Tr          |            |            | 1            | Tr         | Tr     | Tr     | Tr       | Tr     | Tr          |          |         |  |
| 93       | K005       |             | 20        | 40       |        |          | 32       |           | Tr     |          |         |             |           |        | 1        |              |         | 1       | Tr     | 1           | Tr         |            | 3            | Tr         | Tr     | Tr     | Tr       | 2      | Tr          |          |         |  |
| 94       | P075       |             |           |          |        |          | Tr       | Tr        |        |          |         |             |           | Tr     | 2        |              |         |         | Tr     | Tr          |            |            |              |            |        |        | 95       | Tr     | 3           |          |         |  |
| 95       | P076       |             |           | 3        |        |          | 10       |           | Tr     |          |         |             |           |        | 2        |              |         | Tr      | 1      | Tr          | Tr         |            | 3            |            |        |        | 79       | Tr     | 2           |          |         |  |
| 96       | P070       |             |           | 2        |        |          | Tr       |           |        |          |         |             |           | Tr     | Tr       |              |         | Tr      | 1      | Tr          | Tr         |            | Tr           | Tr         | Tr     |        | 95       | Tr     | 3           |          |         |  |
| 97       | P071       |             | 10        | 9        |        | Tr       | 6        |           |        |          |         |             |           | Tr     | 1        |              |         | 1       | 2      | 1           | Tr         | Tr         |              |            |        |        | 67       | Tr     | 3           |          |         |  |
| 98       | J056       |             | 17        | 26       |        | Tr       | 6        | Tr        | Tr     |          |         |             |           | Tr     | 2        |              |         | Tr      | Tr     |             | Tr         | Tr         |              | Tr         | Tr     | Tr     | 46       | Tr     | 3           |          |         |  |
| 99       | G055       |             | 8         | 8        |        |          | 9        | Tr        | Tr     |          |         |             |           | 11     | 14       |              |         |         |        |             |            |            |              |            |        |        | 50       | Tr     |             |          |         |  |
| 100      | C057       |             | 14        | 9        |        |          | 16       | Tr        | Tr     | Tr       |         |             |           | 21     | 4        |              |         |         |        |             |            |            |              |            |        |        | 14       | Tr     |             |          |         |  |

| Ser. No. | Sample No. | Native gold | Magnetite | Chromite | Spinel | Hematite | Ilmenite | Leucoxene | Rutile | Brookite | Anatase | Cassiterite | Scheelite | Pyrite | Goethite | Chalcopyrite | Bornite | Olivine | Augite | Hypersthene | Hornblende | Actinolite | Clinzoisite | Tourmaline | Garnet | Zircon | Monazite | Quartz | Plagioclase | Clastics | Calcite |
|----------|------------|-------------|-----------|----------|--------|----------|----------|-----------|--------|----------|---------|-------------|-----------|--------|----------|--------------|---------|---------|--------|-------------|------------|------------|-------------|------------|--------|--------|----------|--------|-------------|----------|---------|
| 101      | K051       |             | 33        | 35       |        | Tr       | 8        | Tr        | Tr     |          | Tr      |             |           | Tr     | 14       |              |         | 6       | Tr     | Tr          | 2          |            |             | Tr         | Tr     |        | 7        | 5      |             | Tr       |         |
| 102      | K052       |             | 25        | 56       |        |          | 2        |           | Tr     |          |         |             |           |        | 11       |              |         | 2       | Tr     | 2           | Tr         | Tr         |             |            | Tr     | Tr     |          | 2      | Tr          |          |         |
| 103      | C056       |             | 17        | 21       |        |          | 12       |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | 3           | Tr         | Tr         |             |            | Tr     |        | 46       | Tr     |             | Tr       |         |
| 104      | K056       |             | 23        | 36       |        |          | 33       |           | Tr     |          | Tr      |             |           | 1      | 2        |              |         | 2       | Tr     | Tr          | Tr         |            |             | Tr         | Tr     |        | 3        | Tr     |             | Tr       |         |
| 105      | K050       |             | 41        | 3        |        |          | 32       |           |        |          |         |             |           | 1      | 1        |              |         | 4       | Tr     | 10          | 6          | Tr         |             | Tr         | Tr     |        | 2        | Tr     |             |          |         |
| 106      | K039       |             | 64        | 1        |        |          | 8        |           |        |          |         |             |           |        | 1        |              |         | 3       | 2      | 8           | 3          |            |             | Tr         | Tr     |        | 7        | 3      |             |          |         |
| 107      | N083       |             | 40        | 2        |        |          | 3        | Tr        |        |          |         |             |           | Tr     | 2        |              |         | 3       | Tr     | 26          | 12         |            |             |            |        |        | 2        | 10     |             |          |         |
| 108      | N081       |             | 47        | 3        |        |          | 29       | Tr        | Tr     |          |         |             |           | Tr     | 2        |              |         | 1       | 1      | 9           | 6          |            |             | Tr         | Tr     |        | Tr       | 2      |             |          |         |
| 109      | N082       | Tr          | 43        | 30       |        | Tr       | 18       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         | 4       | Tr     | 1           | 2          | Tr         |             | Tr         | Tr     |        | 1        | 1      |             |          |         |
| 110      | K049       |             | 35        | 41       |        |          | 13       | Tr        |        |          |         |             |           |        | Tr       |              |         | 1       | 1      | 1           | Tr         |            |             | Tr         | Tr     |        | 5        | 2      |             |          |         |
| 111      | N092       |             | 4         | 83       |        |          | 12       | Tr        | 1      | Tr       | Tr      |             |           | Tr     | Tr       |              |         | Tr      | Tr     | Tr          | Tr         |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 112      | K047       |             | 21        | 1        |        |          | 12       |           |        |          |         |             |           |        | Tr       |              |         |         | Tr     | 1           | 65         |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 113      | K048       |             | 40        | 19       |        |          | 33       |           |        |          |         |             |           | Tr     | 2        |              |         | 1       | Tr     | 1           | 4          | Tr         | Tr          | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 114      | N096       |             | 40        | 21       |        |          | 29       | Tr        | Tr     |          |         |             |           | Tr     | Tr       |              |         | 1       | Tr     | 2           | 7          |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 115      | Y063       |             | 67        | 21       |        | Tr       | 2        | Tr        | Tr     |          |         |             |           | Tr     | 3        |              |         | 1       | Tr     | Tr          | 1          | Tr         |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 116      | Y064       |             | 69        | 4        |        |          | 8        | Tr        | 1      |          |         |             |           | Tr     | 1        |              |         | 1       | 1      | Tr          | 1          |            |             | Tr         |        | 3      | 9        | 2      |             |          |         |
| 117      | P053       |             | 18        | 43       |        |          | 22       | Tr        |        |          | Tr      |             |           | Tr     | 2        |              |         | 2       | 2      | 2           | Tr         |            |             | Tr         | Tr     |        | 9        | Tr     |             |          |         |
| 118      | P052       |             | 39        | 33       |        |          | 4        |           |        |          |         |             |           | Tr     | Tr       |              |         | 4       | 3      | Tr          | 4          |            |             | Tr         | Tr     |        | 11       | 2      |             |          |         |
| 119      | K045       |             | 80        | 1        |        |          | 18       |           | Tr     |          |         |             |           | Tr     | Tr       |              |         | Tr      | Tr     | Tr          | 1          |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 120      | K046       |             | 30        | 52       |        |          | 2        | Tr        |        |          | Tr      |             |           | Tr     | Tr       |              |         | 5       | 2      | 1           | 8          |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 121      | P051       |             | 17        | 5        |        |          | 3        | Tr        |        |          |         |             |           |        | Tr       |              |         | 3       | 4      | 1           | 2          |            |             | Tr         |        |        | 65       | Tr     |             |          |         |
| 122      | P050       |             | 36        | 5        |        |          | 2        | Tr        |        |          |         |             |           |        | 1        |              |         | 3       | 2      | Tr          | 1          |            |             | Tr         |        |        | 50       | Tr     |             |          |         |
| 123      | J048       |             | 66        | 13       |        |          | 6        | Tr        | Tr     |          |         |             |           |        | 1        |              |         | 1       | 2      | Tr          | 2          |            |             | Tr         | Tr     |        | 7        | 1      |             |          |         |
| 124      | J049       |             | 48        | 42       |        |          | 1        |           |        |          |         |             |           | Tr     | Tr       |              |         | 1       | 3      | Tr          | Tr         |            |             | Tr         | Tr     |        | 3        | 2      |             |          |         |
| 125      | Y046       |             | 19        | 56       |        |          | 16       | Tr        |        |          |         |             |           | Tr     | Tr       |              |         | Tr      | 3      | 1           |            |            |             | Tr         | Tr     | 1      | 2        | 2      |             |          |         |
| 126      | J053       |             | 32        | 38       |        |          | 14       |           |        |          |         |             |           |        | Tr       |              |         | 3       | 2      | 1           | Tr         |            |             | Tr         |        |        | 4        | 6      |             |          |         |
| 127      | P048       |             | 62        | 7        |        |          | 2        |           |        |          |         |             |           |        | 1        |              |         | 2       | 11     |             | 9          |            |             | Tr         | Tr     |        | 2        | 4      |             |          |         |
| 128      | J047       |             | 61        | 5        |        |          | 3        |           | Tr     |          |         |             |           |        | 1        |              |         | 1       | 8      |             | 10         |            |             | Tr         | Tr     |        | 5        | 6      |             |          |         |
| 129      | J046       |             | 58        | 16       | Tr     |          | 5        |           | Tr     |          |         |             |           |        | 1        |              |         | 1       | 6      | Tr          | 2          |            |             | Tr         | Tr     |        | 4        | 6      |             |          |         |
| 130      | J045       |             | 62        | 12       |        |          | 10       | Tr        |        |          |         |             |           |        | 1        |              |         | 2       | 2      | Tr          | 2          |            |             | Tr         | Tr     |        | 2        | 6      |             |          |         |
| 131      | J044       |             | 56        | 2        |        |          | 16       |           |        |          |         |             |           |        | Tr       |              |         | 1       | 5      |             | 19         |            |             |            |        |        | Tr       | 1      |             |          |         |
| 132      | K033       |             | 56        | 10       |        |          | 9        |           |        |          |         |             |           |        | 1        |              |         | 2       | 1      |             | 3          |            |             |            |        | 1      | 5        | 12     |             |          |         |
| 133      | K032       |             | 77        | 11       |        |          | 9        |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | 1      | Tr          | 1          |            |             | Tr         | Tr     |        | Tr       | 1      |             |          |         |
| 134      | P028       |             | 62        | 6        |        |          | 10       |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | 8      | Tr          | 1          |            | 1           | Tr         | Tr     |        | 1        | 11     |             |          |         |
| 135      | Y070       |             | 57        | 17       |        |          | 5        |           |        |          |         |             |           |        | Tr       |              |         | Tr      | 4      | Tr          | 6          |            |             | Tr         | Tr     |        | 5        | 6      |             |          |         |
| 136      | K034       |             | 62        | 3        |        |          | 6        |           |        |          |         |             |           |        | Tr       |              |         | 2       | 3      | 1           | 1          |            | Tr          | Tr         | Tr     |        | 1        | 21     |             |          |         |
| 137      | P043       |             | 56        | 5        |        |          | 16       |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | 2      | Tr          | 17         |            | Tr          | Tr         | Tr     |        | Tr       | 3      |             |          |         |
| 138      | P044       |             | 95        | 1        |        |          | 4        |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          |            |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |
| 139      | P029       |             | 56        | 12       |        |          | 8        |           | Tr     |          |         |             |           |        | Tr       |              |         | 1       | 6      | Tr          | 9          |            | Tr          | Tr         |        | Tr     | 1        | 7      |             |          |         |
| 140      | P037       |             | 32        | 38       |        |          | 20       |           | 1      |          |         |             |           |        | Tr       |              |         |         | 1      |             | 6          |            | Tr          | Tr         |        | Tr     | Tr       | 1      |             |          |         |
| 141      | P036       |             | 19        | 55       |        |          | 25       |           | Tr     |          |         |             |           |        |          |              |         |         | 1      |             | Tr         |            | Tr          |            |        |        | Tr       | Tr     |             |          |         |
| 142      | Y045       |             | 53        | 29       |        |          | 13       |           |        |          |         |             |           |        | Tr       |              |         | 1       | 2      | Tr          | Tr         |            |             | Tr         | Tr     |        | Tr       | 2      |             |          |         |
| 143      | N021       |             | 59        | 3        |        |          | 10       |           |        |          |         |             |           |        | Tr       |              |         | Tr      | 4      | 1           | 3          |            | Tr          |            |        |        | Tr       | 20     |             |          |         |
| 144      | K029       |             | 56        | 3        |        |          | 12       |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | 5      | Tr          | 8          |            | Tr          |            |        |        | Tr       | 14     |             |          |         |
| 145      | J028       |             | 39        | 5        |        |          | 35       |           |        |          |         |             |           |        | Tr       |              |         | Tr      | 7      | Tr          | 5          |            | Tr          |            |        |        | Tr       | 7      |             |          |         |
| 146      | G010       |             | 25        | 5        |        |          | 65       |           | Tr     |          |         |             |           |        | Tr       |              |         |         | 1      | 1           | Tr         |            |             | Tr         |        |        | Tr       | 3      |             |          |         |
| 147      | G005       |             | 31        | 10       |        |          | 29       |           |        |          |         |             |           |        |          |              |         | 1       | 13     | Tr          | 9          |            |             | Tr         | Tr     |        | 1        | 6      |             |          |         |
| 148      | K020       |             | 50        | 6        |        |          | 10       |           |        |          |         |             |           |        | Tr       |              |         | Tr      | 10     | 1           | 12         |            |             |            |        |        | 1        | 10     |             |          |         |
| 149      | K019       |             | 44        | 7        |        |          | 12       |           |        |          |         |             |           |        | Tr       |              |         | 1       | 10     | 1           | 22         |            |             |            |        |        | 1        | 2      |             |          |         |
| 150      | Y022       |             | 17        | 47       |        |          | 36       |           | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          | Tr         |            |             | Tr         | Tr     |        | Tr       | Tr     |             |          |         |

| Ser. No. | Sample No. | Native gold | Magnetite | Chromite | Spinel | Hematite | Ilmenite | Leucocoxene | Rutile | Brookite | Anatase | Cassiterite | Scheelite | Pyrite | Goethite | Chalcopyrite | Bornite | Olivine | Augite | Hypersthene | Hornblende | Actinolite | Clinozoisite | Tourmaline | Garnet | Zircon | Monazite | Quartz | Plagioclase | Clastics | Calcite |
|----------|------------|-------------|-----------|----------|--------|----------|----------|-------------|--------|----------|---------|-------------|-----------|--------|----------|--------------|---------|---------|--------|-------------|------------|------------|--------------|------------|--------|--------|----------|--------|-------------|----------|---------|
| 151      | K027       |             | 45        | 46       |        |          | 4        |             |        |          |         |             |           |        | Tr       |              |         |         | 1      | 1           | 1          |            |              |            |        |        | Tr       | 2      |             |          |         |
| 152      | J015       |             | 15        | 57       |        |          | 18       |             |        |          |         |             |           |        |          |              |         |         | 3      | 1           | 2          |            | 1            | Tr         | Tr     |        | 1        | 2      |             |          |         |
| 153      | J022       |             | 40        | 16       |        |          | 9        |             |        |          |         |             |           |        | Tr       |              |         | 18      | 1      | 2           |            |            | 2            |            |        | 2      | 10       |        |             |          |         |
| 154      | J023       |             | 12        | 68       |        |          | 19       | Tr          | Tr     |          | Tr      |             |           | Tr     | Tr       |              | Tr      | Tr      | Tr     | Tr          | Tr         |            |              | Tr         | Tr     | 1      | Tr       |        |             |          |         |
| 155      | K018       |             | 53        | 32       |        |          | 14       |             | Tr     |          |         |             |           |        | Tr       |              | Tr      | Tr      | Tr     | Tr          | Tr         |            |              |            | Tr     |        |          |        |             |          |         |
| 156      | K017       |             | 29        | 19       |        |          | 20       |             |        |          |         |             |           |        | Tr       |              | Tr      | Tr      | Tr     | Tr          | 2          |            | Tr           |            | Tr     | 1      | Tr       |        |             |          |         |
| 157      | C023       |             | 61        | 7        |        |          | 2        |             |        |          |         |             |           |        | Tr       |              |         | 19      | 2      | 1           | Tr         |            | Tr           |            |        |        | 2        | 10     |             |          |         |
| 158      | G017       |             | 38        | 49       |        |          | 13       | Tr          |        |          |         |             |           |        |          |              | Tr      | Tr      | Tr     | 2           | 1          | Tr         | Tr           |            | Tr     |        | Tr       | Tr     |             |          |         |
| 159      | G004       |             | Tr        | 8        |        |          | Tr       |             | Tr     |          | Tr      |             |           | Tr     | Tr       |              |         | Tr      | Tr     |             |            |            |              |            | Tr     |        | 92       | Tr     |             |          |         |
| 160      | G003       |             | 33        | 9        |        |          | 26       |             | Tr     |          |         |             |           |        | 3        |              |         |         | 3      | 5           | Tr         | 2          | 5            |            |        |        | 5        | 9      |             |          |         |
| 161      | G016       |             | Tr        | 74       |        |          | Tr       |             | Tr     |          | 1       |             |           | Tr     | 9        |              |         |         |        | Tr          | Tr         |            | Tr           |            |        |        | 16       | Tr     |             |          |         |
| 162      | Y014       |             | 76        | 4        |        |          | 16       |             |        |          |         |             |           |        | Tr       |              | Tr      | 3       | Tr     | Tr          |            |            |              | Tr         |        |        | Tr       | 1      |             |          |         |
| 163      | P002       |             | 9         | 50       |        |          | 10       | 1           | 1      |          | 3       |             |           | Tr     | Tr       |              |         |         | Tr     | Tr          |            |            |              | Tr         | 5      | 21     | Tr       |        |             |          |         |
| 164      | G002       |             | 16        | 32       |        |          | 31       | Tr          | Tr     |          | Tr      |             |           |        | Tr       |              | 2       | 4       | 1      | 1           | 1          |            |              | Tr         |        | 2      | 11       |        |             |          |         |
| 165      | K009       |             | 39        | 5        |        |          | 40       |             |        |          |         |             |           |        | Tr       |              |         | 10      | Tr     | 4           | 4          |            |              | Tr         |        | Tr     | 2        |        |             |          |         |
| 166      | C010       |             | 14        | Tr       |        |          | 20       | Tr          |        |          |         |             |           |        | 5        |              |         | 55      | Tr     | Tr          | 1          |            |              |            |        | 1      | 5        |        |             |          |         |
| 167      | Y009       |             | 79        | 6        |        |          | 11       |             |        |          |         |             |           |        | Tr       |              | Tr      | 2       | Tr     | Tr          | 1          |            |              |            | Tr     |        | Tr       | 1      |             |          |         |
| 168      | P001       |             | 10        | 6        |        |          |          |             | Tr     |          |         |             |           | Tr     | Tr       |              |         | 19      | Tr     | Tr          | 1          |            |              |            | Tr     | Tr     | 7        | 58     |             |          |         |
| 169      | G001       |             | 19        | 28       |        |          | 31       | Tr          | Tr     |          | Tr      |             |           |        | Tr       |              |         | 2       | 4      | 1           |            |            | 1            | Tr         | Tr     | Tr     | 1        | 13     |             |          |         |
| 170      | Y003       |             | 53        | 28       |        |          | 11       | Tr          | Tr     |          |         |             |           | Tr     | Tr       |              |         | Tr      | Tr     | Tr          | 1          |            |              | Tr         | Tr     | Tr     | 2        | 6      |             |          |         |
| 171      | Y001       |             | 66        | 16       |        |          | 18       |             |        |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          |            |            |              |            | Tr     |        | Tr       | Tr     |             |          |         |
| 172      | K004       |             | 52        | 29       |        |          | 10       |             |        |          |         |             |           |        | Tr       |              |         | 1       | 1      | Tr          |            |            |              | Tr         | Tr     | Tr     | 1        | 6      |             |          |         |
| 173      | J006       |             | 55        | 27       |        |          | 2        |             | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          |            |            |              | Tr         | Tr     | Tr     | 3        | 13     |             |          |         |
| 174      | J001       |             | 14        | 58       |        |          | 2        |             |        |          |         |             |           |        | Tr       |              |         | 3       | 1      | 2           | Tr         |            | Tr           | Tr         | Tr     | Tr     | 4        | 16     |             |          |         |
| 175      | C003       | Tr          | 82        | 13       |        |          | 3        |             | Tr     |          |         |             |           |        | Tr       |              |         | Tr      | Tr     | Tr          |            |            |              |            | Tr     | Tr     | Tr       | 2      |             |          |         |

Appendix 8

Analytical results of rock geochemical  
samples in the Segama area



List of Geochemical Analysis ( 1 )

| Ser. No. | Sample No. | As  | Au  | Ba  | Co  | Cr   | Cu  | Hg  | K    | Mg    | Mn   | Mb  | Na   | Ni   | Pb  | S     | Sb   | Sr   | Ti   | U   | W    | Zn  |
|----------|------------|-----|-----|-----|-----|------|-----|-----|------|-------|------|-----|------|------|-----|-------|------|------|------|-----|------|-----|
|          |            | ppm | ppb | ppm | ppm | ppm  | ppm | ppb | %    | %     | ppm  | ppm | %    | ppm  | ppm | %     | ppm  | ppm  | %    | ppm | ppm  | ppm |
| 1        | N037       | 1   | >   | 224 | 28  | 26   | 8   | 10  | 1.04 | 0.37  | 125  | 1   | 76   | 19   | 6   | 0.83  | 2.5  | 76   | 1.7  | 1.4 | 194  | 28  |
| 2        | N101       | 21  | >   | 59  | 25  | 17   | 60  | 16  | 0.79 | 1.72  | 3234 | 2   | 3.59 | 17   | 2   | 0.89  | 7.2  | 97   | 0.61 | 0.4 | 10   | 94  |
| 3        | N097       | 1   | >   | 10  | 53  | 636  | 94  | 10  | 0.02 | 1.45  | 425  | 1   | 1.45 | 334  | 2   | 0.124 | 7.2  | 88   | 0.13 | 0.2 | 10   | 92  |
| 4        | G054       | 1   | >   | 433 | 24  | 43   | 11  | 11  | 0.53 | 0.52  | 189  | 1   | 0.65 | 25   | 10  | 0.66  | 2.0  | 41   | 0.20 | 1.8 | 170  | 29  |
| 5        | N074       | 9   | >   | 186 | 24  | 43   | 12  | 10  | 0.97 | 0.71  | 829  | 1   | 0.91 | 22   | 2   | 0.52  | 1.4  | 88   | 0.18 | 1.4 | 127  | 33  |
| 6        | N079       | 1   | >   | 145 | 41  | 190  | 50  | 10  | 0.79 | 3.91  | 1994 | 1   | 4.25 | 127  | 2   | 0.54  | 18.4 | 195  | 1.32 | 0.2 | 6    | 108 |
| 7        | J040       | 1   | >   | 483 | 42  | 21   | 173 | 10  | 1.28 | 2.40  | 2481 | 1   | 2.64 | 12   | 2   | 1.88  | 5.6  | 279  | 0.93 | 0.8 | 19   | 161 |
| 8        | N011       | 1   | >   | 90  | 50  | 10   | 21  | 10  | 0.02 | 0.1   | 1094 | 1   | 0.01 | 10   | 6   | 0.07  | 1.3  | 13   | 0.01 | 0.8 | 408  | 21  |
| 9        | N015       | 1   | >   | 322 | 22  | 17   | 10  | 10  | 1.18 | 1.32  | 783  | 2   | 3.19 | 9    | 2   | 0.33  | 1.8  | 485  | 0.29 | 0.8 | 141  | 65  |
| 10       | J084       | 4   | 2   | 383 | 24  | 7    | 3   | 10  | 0.80 | 0.33  | 5    | 1   | 4.24 | 3    | 2   | 0.32  | 2.2  | 795  | 0.10 | 0.2 | 205  | 23  |
| 11       | N068       | 1   | >   | 23  | 23  | 28   | 59  | 10  | 0.22 | 2.39  | 623  | 1   | 4.15 | 10   | 2   | 0.45  | 2.2  | 1216 | 0.10 | 0.2 | 34   | 89  |
| 12       | J009       | 1   | >   | 81  | 30  | 43   | 26  | 10  | 0.24 | 3.98  | 1128 | 1   | 2.44 | 30   | 2   | 0.59  | 2.2  | 846  | 0.47 | 0.2 | 13   | 96  |
| 13       | J010       | 1   | >   | 217 | 28  | 30   | 81  | 10  | 0.37 | 2.71  | 1267 | 1   | 3.15 | 25   | 2   | 0.82  | 2.2  | 736  | 0.42 | 0.2 | 34   | 99  |
| 14       | C032       | 1   | >   | 104 | 34  | 79   | 29  | 10  | 0.58 | 3.61  | 682  | 1   | 3.17 | 51   | 2   | 0.53  | 2.2  | 715  | 0.25 | 0.2 | 29   | 76  |
| 15       | C030       | 3   | 1   | 456 | 16  | 49   | 53  | 18  | 0.88 | 1.62  | 361  | 1   | 1.03 | 49   | 4   | 0.25  | 4.5  | 195  | 0.32 | 0.4 | 6    | 84  |
| 16       | N044       | 13  | >   | 370 | 70  | 10   | 36  | 47  | 2.04 | 0.99  | 489  | 5   | 1.97 | 15   | 5   | 0.76  | 4.6  | 199  | 0.22 | 2.0 | 88   | 52  |
| 17       | N089       | 1   | >   | 31  | 46  | 273  | 70  | 10  | 0.51 | 4.88  | 1282 | 1   | 2.80 | 81   | 2   | 1.45  | 4.6  | 120  | 0.84 | 0.2 | 26   | 102 |
| 18       | K043       | 1   | >   | 127 | 53  | 108  | 41  | 10  | 0.18 | 4.03  | 849  | 1   | 3.04 | 138  | 2   | 1.01  | 9.1  | 282  | 1.87 | 0.2 | 26   | 102 |
| 19       | N091       | 1   | >   | 27  | 32  | 518  | 39  | 10  | 0.24 | 6.34  | 5    | 1   | 1.62 | 357  | 2   | 0.74  | 3.1  | 391  | 0.02 | 0.2 | 9    | 122 |
| 20       | N088       | 2   | >   | 128 | 32  | 78   | 19  | 25  | 1.57 | 1.21  | 293  | 1   | 1.13 | 40   | 8   | 0.57  | 3.1  | 190  | 0.24 | 2.2 | 72   | 69  |
| 21       | N086       | 1   | >   | 76  | 27  | 31   | 9   | 10  | 0.56 | 0.59  | 449  | 1   | 0.76 | 18   | 5   | 0.27  | 4.4  | 122  | 0.08 | 1.0 | 223  | 30  |
| 22       | N084       | 1   | >   | 16  | 47  | 360  | 80  | 10  | 0.47 | 5.28  | 1053 | 1   | 2.61 | 103  | 2   | 1.61  | 5.0  | 199  | 0.72 | 0.2 | 68   | 97  |
| 23       | K040       | 1   | >   | 10  | 58  | 552  | 74  | 10  | 0.01 | 10.25 | 218  | 1   | 1.57 | 604  | 2   | 1.06  | 11.6 | 116  | 0.04 | 0.2 | 16   | 103 |
| 24       | N095       | 13  | >   | 44  | 97  | 41   | 8   | 33  | 0.18 | 0.26  | 5    | 1   | 0.27 | 26   | 4   | 1.04  | 2.0  | 15   | 0.04 | 0.4 | 882  | 18  |
| 25       | P031       | 3   | >   | 98  | 24  | 34   | 8   | 10  | 0.63 | 4.45  | 418  | 1   | 0.67 | 39   | 9   | 0.58  | 2.0  | 81   | 0.17 | 1.4 | 224  | 30  |
| 26       | P030       | 1   | >   | 30  | 40  | 290  | 57  | 10  | 0.05 | 4.93  | 895  | 1   | 2.98 | 103  | 2   | 1.47  | 5.8  | 118  | 0.72 | 0.2 | 11   | 88  |
| 27       | P041       | 1   | >   | 50  | 38  | 10   | 24  | 10  | 0.20 | 3.36  | 1257 | 1   | 2.46 | 8    | 2   | 1.05  | 1.9  | 524  | 0.54 | 0.2 | 38   | 90  |
| 28       | K031       | 1   | >   | 38  | 54  | 200  | 1   | 10  | 0.17 | 4.87  | 1046 | 1   | 2.90 | 80   | 2   | 0.49  | 7.3  | 219  | 0.89 | 0.2 | 13   | 74  |
| 29       | Y033       | 11  | 1   | 35  | 35  | 19   | 7   | 10  | 0.20 | 0.22  | 1883 | 1   | 0.31 | 13   | 3   | 1.00  | 4.6  | 108  | 0.08 | 0.4 | 317  | 18  |
| 30       | N022       | 1   | >   | 35  | 46  | 99   | 98  | 10  | 0.44 | 3.76  | 1582 | 1   | 2.96 | 56   | 2   | 0.87  | 7.1  | 159  | 1.38 | 0.2 | 7    | 114 |
| 31       | N020       | 15  | >   | 186 | 21  | 30   | 9   | 10  | 0.89 | 0.54  | 216  | 1   | 0.81 | 16   | 7   | 0.22  | 2.6  | 85   | 0.19 | 1.2 | 161  | 33  |
| 32       | J014       | 1   | >   | 33  | 48  | 240  | 9   | 10  | 0.16 | 5.17  | 1050 | 1   | 2.53 | 111  | 2   | 0.72  | 1.8  | 332  | 0.78 | 0.2 | 123  | 108 |
| 33       | J012       | 1   | >   | 10  | 45  | 1107 | 58  | 10  | 0.06 | 6.89  | 339  | 1   | 1.53 | 207  | 2   | 1.01  | 2.2  | 162  | 0.16 | 0.2 | 93   | 72  |
| 34       | J013       | 1   | >   | 32  | 29  | 22   | 67  | 10  | 0.23 | 2.92  | 274  | 1   | 1.93 | 27   | 2   | 1.28  | 5.14 | 43   | 0.43 | 0.2 | 44   | 59  |
| 35       | J027       | 1   | >   | 24  | 40  | 118  | 66  | 10  | 0.12 | 4.18  | 1392 | 1   | 2.89 | 41   | 2   | 1.77  | 9.6  | 246  | 1.00 | 0.2 | 19   | 100 |
| 36       | N012       | 7   | >   | 161 | 32  | 39   | 9   | 10  | 0.76 | 0.42  | 191  | 1   | 0.64 | 28   | 3   | 0.13  | 2.2  | 49   | 0.23 | 2.0 | 255  | 34  |
| 37       | J024       | 9   | >   | 10  | 98  | 2721 | 4   | 10  | 0.03 | 21.78 | 861  | 1   | 0.04 | 2148 | 2   | 0.09  | 5    | 0.02 | 0.2  | 8   | 196  |     |
| 38       | J020       | 1   | >   | 272 | 54  | 176  | 67  | 10  | 0.58 | 4.07  | 1341 | 1   | 2.76 | 166  | 2   | 0.78  | 4.0  | 380  | 2.24 | 8.8 | 12   | 123 |
| 39       | C033       | 6   | >   | 111 | 28  | 68   | 9   | 10  | 0.69 | 0.52  | 101  | 1   | 0.77 | 25   | 15  | 0.16  | 2.9  | 56   | 0.20 | 1.4 | 201  | 38  |
| 40       | N004       | 5   | 1   | 10  | 109 | 2016 | 3   | 10  | 0.1  | 21.30 | 827  | 1   | 0.1  | 2391 | 2   | 0.09  | 2.2  | 1    | 0.01 | 0.2 | 2    | 201 |
| 41       | C035       | 16  | >   | 71  | 107 | 27   | 31  | 10  | 0.21 | 0.14  | 474  | 1   | 0.02 | 15   | 7   | 0.09  | 2.2  | 28   | 0.05 | 1.0 | 1044 | 16  |
| 42       | N013       | 9   | 3   | 62  | 61  | 30   | 35  | 10  | 0.05 | 0.02  | 678  | 1   | 0.01 | 11   | 2   | 0.09  | 2.2  | 18   | 0.02 | 0.6 | 595  | 10  |
| 43       | G013       | 1   | >   | 45  | 39  | 151  | 37  | 10  | 0.09 | 4.30  | 1313 | 1   | 2.87 | 52   | 2   | 0.90  | 5.8  | 159  | 1.18 | 0.2 | 45   | 97  |
| 44       | G014       | 1   | >   | 78  | 16  | 166  | 44  | 18  | 1.30 | 1.07  | 1333 | 1   | 3.63 | 112  | 2   | 0.55  | 5.3  | 79   | 0.33 | 0.8 | 33   | 61  |
| 45       | G015       | 1   | >   | 114 | 23  | 39   | 11  | 10  | 0.79 | 0.67  | 357  | 1   | 1.01 | 20   | 5   | 0.19  | 4.4  | 53   | 0.11 | 1.6 | 209  | 39  |
| 46       | C008       | 1   | >   | 26  | 49  | 151  | 64  | 10  | 0.12 | 4.00  | 1078 | 1   | 2.54 | 86   | 2   | 0.85  | 9.6  | 93   | 0.66 | 0.2 | 14   | 92  |
| 47       | Y017       | 2   | >   | 10  | 117 | 2795 | 1   | 10  | 0.01 | 23.95 | 1167 | 1   | 0.12 | 3329 | 6   | 0.18  | 4    | 0.01 | 0.2  | 42  | 218  |     |
| 48       | Y002       | 1   | >   | 10  | 40  | 149  | 39  | 22  | 0.07 | 4.53  | 1230 | 1   | 2.41 | 80   | 2   | 0.56  | 2.7  | 91   | 0.68 | 0.2 | 6    | 103 |
| 49       | Y004       | 1   | >   | 12  | 104 | 2041 | 6   | 11  | 0.04 | 22.00 | 1097 | 1   | 1.2  | 2056 | 2   | 0.30  | 2.2  | 20   | 0.02 | 0.2 | 7    | 190 |
| 50       | N052       | 1   | >   | 10  | 130 | 2368 | 2   | 10  | 0.1  | 23.87 | 1065 | 1   | 0.02 | 2409 | 2   | 0.25  | 13   | 0.02 | 0.2  | 2   | 220  |     |
| 51       | N053       | 1   | >   | 10  | 108 | 2526 | 13  | 10  | 0.1  | 21.99 | 968  | 1   | 0.03 | 2168 | 2   | 0.25  | 3    | 0.01 | 0.2  | 2   | 191  |     |





Appendix 9

List of soil geochemical sample  
in the Segama area



| Ser. No. | Sample No. | Coordinates |         | 1/50,000 Topo. Sheet | Rock of Basement | Geol. Unit | Depth (cm) | Color | G. *1 | S. *2 | T. *3 | H. *4 | Vegetation       |
|----------|------------|-------------|---------|----------------------|------------------|------------|------------|-------|-------|-------|-------|-------|------------------|
|          |            | N           | E       |                      |                  |            |            |       |       |       |       |       |                  |
| 1        | Y054       | 1462.85     | 4730.95 | Kuamut               | ultramafic rock  | Ub         | 25         | Y.B.  | R     | C     | M     | D     | Secondary forest |
| 2        | Y029       | 1455.00     | 4765.30 | Sungai Bole          | ultramafic rock  | Ub         | 20         | Y.    | R     | C     | M     | D     | Primary forest   |
| 3        | P023       | 1458.25     | 4766.85 | Sungai Bole          | ultramafic rock  | Ub         | 30         | B.    | F     | S     | S     | W     | Secondary forest |
| 4        | C038       | 1466.25     | 4772.20 | Sungai Bole          | ultramafic rock  | Ub         | 20         | D.B.  | R     | C     | M     | D     | Primary forest   |
| 5        | C043       | 1467.90     | 4774.85 | Sungai Bole          | ultramafic rock  | Ub         | 20         | D.B.  | R     | C     | M     | D     | Primary forest   |
| 6        | P059       | 1468.70     | 4777.75 | Sungai Bole          | basic rock       | Ub         | 30         | Y.B.  | R     | S     | F     | D     | Secondary forest |
| 7        | P058       | 1468.70     | 4778.15 | Sungai Bole          | basic rock       | Ub         | 30         | B.    | F     | S     | M     | D     | Secondary forest |
| 8        | P060       | 1471.30     | 4779.80 | Sungai Bole          | ultramafic rock  | Ub         | 30         | B.    | R     | S     | M     | D     | Secondary forest |
| 9        | P061       | 1468.50     | 4782.15 | Sungai Bole          | ultramafic rock  | Ub         | 30         | B.    | R     | S     | M     | W     | Secondary forest |
| 10       | N050       | 1451.85     | 4786.30 | Sungai Bole          | dunite           | Ub         | 30         | D.B.  | R     | C     | M     | W     | Secondary forest |
| 11       | N033       | 1452.55     | 4793.25 | Mansuli              | serpentinite     | Ub         | 30         | B.    | R     | C     | M     | W     | Secondary forest |
| 12       | N032       | 1452.15     | 4794.00 | Mansuli              | serpentinite     | Ub         | 30         | B.    | R     | C     | M     | W     | Secondary forest |
| 13       | N037       | 1454.25     | 4794.65 | Mansuli              | serpentinite     | Ub         | 30         | D.B.  | R     | C     | M     | W     | Secondary forest |
| 14       | N036       | 1453.75     | 4795.00 | Mansuli              | serpentinite     | Ub         | 30         | B.    | R     | C     | M     | W     | Secondary forest |
| 15       | P013       | 1454.10     | 4795.20 | Mansuli              | serpentinite     | Ub         | 30         | B.    | M     | S     | M     | D     | Primary forest   |
| 16       | P012       | 1453.40     | 4795.40 | Mansuli              | serpentinite     | Ub         | 30         | B.    | R     | S     | F     | W     | Primary forest   |
| 17       | K013       | 1454.25     | 4798.50 | Mansuli              | serpentinite     | Ub         | 5          | G.B.  | F     | C     | M     | D     | Primary forest   |
| 18       | P054       | 1442.65     | 4752.35 | Ulu Segama           | peridotite       | Ub         | 30         | Y.B.  | F     | S     | S     | W     | Primary forest   |
| 19       | P049       | 1442.90     | 4756.00 | Ulu Segama           | ultramafic rock  | Ub         | 30         | D.B.  | F     | S     | S     | W     | Primary forest   |
| 20       | J042       | 1432.15     | 4764.00 | Sungai Ulu Bole      | ultramafic rock  | Ub         | 30         | D.B.  | R     | C     | M     | D     | Secondary forest |
| 21       | J043       | 1432.15     | 4764.45 | Sungai Ulu Bole      | ultramafic rock  | Ub         | 30         | D.B.  | R     | C     | M     | D     | Secondary forest |
| 22       | G006       | 1450.65     | 4779.95 | Sungai Ulu Bole      | serpentinite     | Ub         | 20         | Y.B.  | R     | C     | M     | D     | Primary forest   |
| 23       | G007       | 1450.55     | 4780.00 | Sungai Ulu Bole      | serpentinite     | Ub         | 30         | B.    | R     | C     | M     | D     | Primary forest   |
| 24       | J016       | 1441.55     | 4783.65 | Sungai Ulu Bole      | serpentinite     | Ub         | 40         | D.B.  | R     | C     | M     | D     | Secondary forest |
| 25       | J018       | 1445.45     | 4784.30 | Sungai Ulu Bole      | serpentinite     | Ub         | 35         | D.B.  | R     | S     | M     | D     | Secondary forest |
| 26       | Y019       | 1448.50     | 4784.80 | Sungai Ulu Bole      | peridotite       | Ub         | 15         | Y.B.  | R     | C     | F     | D     | Primary forest   |
| 27       | J017       | 1445.45     | 4784.80 | Sungai Ulu Bole      | serpentinite     | Ub         | 30         | D.B.  | R     | S     | M     | D     | Secondary forest |
| 28       | N034       | 1451.85     | 4785.50 | Sungai Ulu Bole      | dunite           | Ub         | 30         | Y.B.  | R     | C     | M     | W     | Secondary forest |
| 29       | N035       | 1451.85     | 4785.85 | Sungai Ulu Bole      | dunite           | Ub         | 30         | D.B.  | R     | C     | M     | W     | Secondary forest |
| 30       | Y023       | 1450.80     | 4787.85 | Silam                | peridotite       | Ub         | 20         | Y.    | R     | C     | M     | D     | Primary forest   |

\*1Grain size: Sandy (S), Clayey (C)

\*2Gravel: Many (M), Few (F), Rare or none (R)

\*3Topography: Steep (S), Moderate (M), Flat (F)

\*4Humidity: Dry (D), Wet (W)

| Ser. No. | Sample No. | Coordinates |         | 1/50,000 Topo. Sheet | Rock of Basement | Geol. Unit | Depth (cm) | Color | G. *1 | S. *2 | T. *3 | H. *4 | Vegetation       |
|----------|------------|-------------|---------|----------------------|------------------|------------|------------|-------|-------|-------|-------|-------|------------------|
|          |            | N           | E       |                      |                  |            |            |       |       |       |       |       |                  |
| 31       | G021       | 1439.90     | 4788.80 | Silam                | ultramafic rock  | Ub         | 30         | B.    | R     | S     | M     | D     | Primary forest   |
| 32       | G020       | 1439.95     | 4789.10 | Silam                | ultramafic rock  | Ub         | 20         | B.    | C     | C     | M     | D     | Primary forest   |
| 33       | G018       | 1438.85     | 4789.20 | Silam                | ultramafic rock  | Ub         | 20         | P.Y.  | R     | C     | M     | W     | Primary forest   |
| 34       | G019       | 1439.10     | 4789.60 | Silam                | ultramafic rock  | Ub         | 25         | P.B.  | F     | C     | M     | W     | Primary forest   |
| 35       | C028       | 1445.25     | 4789.70 | Silam                | ultramafic rock  | Ub         | 20         | B.    | F     | C     | M     | D     | Primary forest   |
| 36       | C029       | 1445.20     | 4790.00 | Silam                | ultramafic rock  | Ub         | 20         | B.    | F     | C     | M     | D     | Primary forest   |
| 37       | P034       | 1450.10     | 4791.30 | Silam                | peridotite       | Ub         | 30         | B.    | R     | S     | M     | W     | Primary forest   |
| 38       | C026       | 1445.10     | 4791.35 | Silam                | peridotite       | Ub         | 20         | D.B.  | M     | C     | S     | D     | Primary forest   |
| 39       | P033       | 1450.10     | 4791.70 | Silam                | peridotite       | Ub         | 30         | B.    | R     | S     | M     | W     | Primary forest   |
| 40       | C025       | 1445.10     | 4791.75 | Silam                | peridotite       | Ub         | 30         | B.    | R     | S     | S     | D     | Primary forest   |
| 41       | Y011       | 1444.30     | 4796.15 | Silam                | basic rock       | Ub         | 20         | Y.B.  | F     | C     | M     | D     | Primary forest   |
| 42       | Y013       | 1445.70     | 4798.00 | Silam                | basalt           | KPCs       | 15         | Y.B.  | R     | C     | F     | D     | Primary forest   |
| 43       | Y015       | 1446.10     | 4799.45 | Silam                | ultramafic rock  | Ub         | 10         | Y.    | M     | C     | S     | D     | Primary forest   |
| 44       | Y016       | 1445.90     | 4799.35 | Silam                | ultramafic rock  | Ub         | 10         | Y.    | M     | C     | S     | D     | Primary forest   |
| 45       | Y018       | 1445.20     | 4799.95 | Silam                | basalt           | KPCs       | 20         | Y.B.  | F     | C     | M     | D     | Primary forest   |
| 46       | Y007       | 1444.90     | 4801.85 | Silam                | ultramafic rock  | Ub         | 20         | B.    | F     | C     | M     | W     | Primary forest   |
| 47       | Y008       | 1444.90     | 4802.05 | Silam                | ultramafic rock  | Ub         | 10         | B.    | F     | C     | M     | W     | Primary forest   |
| 48       | Y006       | 1445.60     | 4803.10 | Silam                | peridotite       | Ub         | 10         | B.    | M     | S     | S     | W     | Primary forest   |
| 49       | Y005       | 1445.55     | 4803.30 | Silam                | peridotite       | Ub         | 10         | B.    | M     | S     | S     | W     | Primary forest   |
| 50       | N038       | 1450.80     | 4804.70 | Silam                | serpentinite     | Ub         | 30         | D.B.  | F     | C     | S     | W     | Secondary forest |
| 51       | K001       | 1445.10     | 4805.30 | Silam                | peridotite       | Ub         | 20         | Y.B.  | F     | C     | S     | D     | Primary forest   |
| 52       | P008       | 1450.05     | 4805.50 | Silam                | ultramafic rock  | Ub         | 30         | D.B.  | M     | S     | M     | W     | Primary forest   |
| 53       | K002       | 1445.10     | 4805.60 | Silam                | peridotite       | Ub         | 20         | Y.B.  | C     | S     | M     | D     | Primary forest   |
| 54       | P007       | 1450.05     | 4805.75 | Silam                | ultramafic rock  | Ub         | 20         | B.    | R     | M     | S     | W     | Primary forest   |
| 55       | N031       | 1451.05     | 4805.90 | Silam                | serpentinite     | Ub         | 30         | Y.B.  | C     | S     | F     | W     | Secondary forest |
| 56       | K006       | 1445.70     | 4806.10 | Silam                | peridotite       | Ub         | 5          | Y.B.  | R     | R     | M     | D     | Primary forest   |
| 57       | K007       | 1445.75     | 4806.30 | Silam                | peridotite       | Ub         | 5          | G.    | R     | R     | M     | D     | Primary forest   |
| 58       | P005       | 1450.00     | 4807.65 | Silam                | basic rock       | Ub         | 20         | B.    | C     | S     | M     | D     | Primary forest   |
| 59       | J004       | 1446.90     | 4807.90 | Silam                | serpentinite     | Ub         | 30         | B.    | S     | S     | S     | D     | Secondary forest |
| 60       | P006       | 1450.10     | 4807.90 | Silam                | basic rock       | Ub         | 20         | B.    | F     | M     | S     | D     | Primary forest   |

\*1Gravel: Many (M), Few (F), Rare or none (R)  
 \*\*2Grain size: Sandy (S), Clayey (C)  
 \*\*3Topography: Steep (S), Moderate (M), Flat (F)  
 \*\*4Humidity: Dry (D), Wet (W)

Area: Segama Area

| Ser. No. | Sample No. | Coordinates |         | 1/50,000 Topo. Sheet | Rock of Basement | Geol. Unit | Depth (cm) | Color | G. #1 | S. #2 | T. #3 | H. #4 | Vegetation       |
|----------|------------|-------------|---------|----------------------|------------------|------------|------------|-------|-------|-------|-------|-------|------------------|
|          |            | N           | E       |                      |                  |            |            |       |       |       |       |       |                  |
| 61       | J005       | 1447.05     | 4808.25 | Silam                | serpentinite     | Ub         | 30         | D.B.  | R     | C     | M     | D     | Secondary forest |
| 62       | J007       | 1445.95     | 4808.75 | Silam                | serpentinite     | Ub         | 30         | D.B.  | R     | S     | M     | D     | Secondary forest |
| 63       | N040       | 1445.75     | 4808.75 | Silam                | dunite           | Ub         | 30         | D.B.  | R     | C     | M     | W     | Secondary forest |
| 64       | J008       | 1447.10     | 4808.85 | Silam                | serpentinite     | Ub         | 40         | D.B.  | R     | S     | M     | D     | Secondary forest |
| 65       | J002       | 1448.25     | 4809.15 | Silam                | serpentinite     | Ub         | 30         | D.B.  | R     | C     | S     | D     | Secondary forest |
| 66       | N029       | 1449.90     | 4809.25 | Silam                | serpentinite     | Ub         | 30         | B.    | F     | C     | S     | W     | Secondary forest |
| 67       | J003       | 1448.55     | 4809.35 | Silam                | serpentinite     | Ub         | 40         | B.    | F     | C     | M     | W     | Secondary forest |
| 68       | N027       | 1449.90     | 4809.90 | Silam                | serpentinite     | Ub         | 30         | D.B.  | F     | C     | S     | W     | Secondary forest |
| 69       | N039       | 1447.25     | 4809.90 | Silam                | serpentinite     | Ub         | 30         | B.    | R     | C     | M     | W     | Secondary forest |
| 70       | N028       | 1450.00     | 4810.25 | Silam                | serpentinite     | Ub         | 30         | D.B.  | F     | C     | S     | W     | Secondary forest |
| 71       | C005       | 1449.10     | 4810.40 | Silam                | peridotite       | Ub         | 20         | Y.B.  | R     | C     | M     | W     | Primary forest   |
| 72       | C004       | 1449.40     | 4810.50 | Silam                | peridotite       | Ub         | 20         | P.B.  | R     | C     | M     | D     | Primary forest   |
| 73       | N025       | 1450.70     | 4811.90 | Silam                | serpentinite     | Ub         | 30         | B.    | F     | C     | S     | W     | Secondary forest |
| 74       | N026       | 1450.45     | 4811.65 | Silam                | serpentinite     | Ub         | 30         | D.B.  | F     | C     | S     | W     | Secondary forest |

\*1Gravel: Many (M), Few (F), Rare or none (R)

\*\*2Topography: Steep (S), Moderate (M), Flat (F)

\*\*3Grain size: Sandy (S), Clayey (C)

\*\*4Humidity: Dry (D), Wet (W)



Appendix 10

Analytical results of soil geochemical  
samples in the Segama area





| Ser. No. | Sample No. | Al % | Co ppm | Cr ppm | Fe % | Ni ppm | Pt ppb |
|----------|------------|------|--------|--------|------|--------|--------|
| 1        | C004       | 1.43 | 243    | 4471   | 3.20 | 2208   | 10     |
| 2        | C005       | 1.13 | 280    | 4628   | 3.07 | 2129   | 10     |
| 3        | K001       | 1.89 | 30     | 372    | 1.25 | 162    | 5      |
| 4        | K002       | 1.37 | 116    | 1836   | 1.74 | 1302   | 5      |
| 5        | J002       | .97  | 155    | 3291   | 2.20 | 1874   | 5      |
| 6        | J003       | 1.12 | 115    | 2046   | 1.96 | 1821   | 5      |
| 7        | J004       | 1.90 | 36     | 116    | 1.53 | 41     | 10     |
| 8        | J005       | .59  | 463    | 4892   | 2.52 | 2142   | 30     |
| 9        | J007       | .31  | 501    | 3312   | 4.84 | 2083   | 25     |
| 10       | J008       | 1.68 | 57     | 565    | 1.62 | 163    | 10     |
| 11       | P005       | 2.61 | 52     | 347    | 2.15 | 121    | 5      |
| 12       | P006       | .89  | 141    | 5745   | 1.87 | 1501   | 15     |
| 13       | K006       | .66  | 161    | 3364   | 1.77 | 1726   | 15     |
| 14       | K007       | 1.66 | 32     | 245    | 1.28 | 153    | 5      |
| 15       | Y005       | .47  | 230    | 3509   | 2.49 | 2351   | 10     |
| 16       | Y006       | .51  | 219    | 4232   | 2.98 | 3083   | 15     |
| 17       | Y007       | .44  | 365    | 6068   | 3.33 | 3705   | 15     |
| 18       | Y008       | .45  | 221    | 6734   | 1.57 | 1314   | 15     |
| 19       | P007       | .65  | 389    | 9920   | 2.55 | 2710   | 25     |
| 20       | P008       | .73  | 446    | 17305  | 2.13 | 2093   | 15     |
| 21       | Y011       | 1.18 | 110    | 2000   | 2.33 | 1401   | 5      |
| 22       | Y013       | 1.45 | 95     | 1719   | 1.83 | 961    | 4      |
| 23       | Y015       | .49  | 160    | 2896   | 2.22 | 2295   | 5      |
| 24       | Y016       | .55  | 201    | 3457   | 1.73 | 1460   | 5      |
| 25       | Y018       | .62  | 236    | 4350   | 2.35 | 2434   | 10     |
| 26       | G006       | 2.09 | 32     | 119    | 1.33 | 42     | 5      |
| 27       | G007       | 2.27 | 42     | 188    | 1.84 | 61     | 5      |
| 28       | P012       | 2.02 | 38     | 181    | 1.50 | 59     | 5      |
| 29       | P013       | .60  | 288    | 5250   | 2.07 | 2130   | 15     |
| 30       | Y019       | 2.04 | 81     | 518    | 2.35 | 138    | 5      |
| 31       | Y023       | 2.39 | 94     | 434    | 2.55 | 155    | 5      |
| 32       | K013       | 2.02 | 46     | 143    | 1.85 | 54     | 5      |
| 33       | C025       | .49  | 224    | 4790   | 2.58 | 2260   | 10     |
| 34       | C026       | .53  | 262    | 3024   | 2.84 | 3132   | 25     |
| 35       | C028       | 1.22 | 197    | 3258   | 2.79 | 1790   | 15     |
| 36       | C029       | 1.14 | 181    | 3094   | 2.55 | 1544   | 10     |
| 37       | J016       | 1.71 | 223    | 3412   | 3.52 | 1792   | 20     |
| 38       | J017       | 2.01 | 114    | 1360   | 2.84 | 1063   | 5      |
| 39       | J018       | 2.05 | 101    | 1205   | 2.66 | 941    | 5      |
| 40       | Y029       | 1.40 | 27     | 233    | 1.17 | 78     | 5      |
| 41       | P023       | 2.31 | 58     | 329    | 2.14 | 114    | 5      |
| 42       | G018       | 2.99 | 56     | 756    | 1.32 | 364    | 5      |
| 43       | G019       | 1.68 | 137    | 2027   | 2.46 | 1709   | 5      |
| 44       | G020       | .90  | 487    | 8815   | 4.14 | 2971   | 20     |
| 45       | G021       | .82  | 718    | 5809   | 2.53 | 2457   | 20     |
| 46       | P034       | 1.65 | 83     | 1160   | 1.98 | 346    | 5      |
| 47       | P033       | 1.53 | 68     | 813    | 1.97 | 277    | 10     |
| 48       | C038       | 1.71 | 27     | 230    | 1.04 | 181    | 5      |
| 49       | C043       | 1.54 | 33     | 223    | 1.36 | 94     | 5      |
| 50       | N025       | .52  | 185    | 4500   | 3.12 | 3328   | 15     |
| 51       | N026       | .53  | 158    | 3623   | 3.07 | 3700   | 10     |
| 52       | N027       | .77  | 168    | 4108   | 3.33 | 3322   | 10     |
| 53       | N028       | .49  | 169    | 3971   | 3.15 | 3516   | 15     |
| 54       | N029       | .57  | 173    | 4042   | 3.10 | 3321   | 10     |
| 55       | N031       | 1.52 | 26     | 78     | 1.01 | 36     | 5      |
| 56       | N032       | 2.43 | 36     | 233    | 1.93 | 152    | 5      |
| 57       | N033       | 1.86 | 213    | 3036   | 3.27 | 2126   | 10     |
| 58       | N034       | 3.07 | 50     | 504    | 3.72 | 192    | 5      |
| 59       | N035       | 1.30 | 255    | 9336   | 8.03 | 5313   | 15     |
| 60       | N036       | .54  | 654    | 6680   | 3.92 | 4098   | 10     |
| 61       | N037       | .48  | 195    | 4770   | 3.15 | 2513   | 20     |
| 62       | N038       | .38  | 300    | 3476   | 3.88 | 4490   | 30     |
| 63       | N039       | 2.04 | 35     | 204    | 1.61 | 74     | 5      |
| 64       | N040       | .47  | 223    | 1388   | 4.16 | 1946   | 20     |
| 65       | N050       | 1.80 | 380    | 5873   | 7.48 | 3725   | 35     |
| 66       | J042       | 2.24 | 69     | 358    | 2.64 | 78     | 5      |
| 67       | J043       | 2.13 | 70     | 270    | 2.53 | 61     | 5      |
| 68       | P049       | 1.16 | 297    | 4035   | 2.82 | 1953   | 20     |
| 69       | P054       | 1.89 | 41     | 159    | 1.79 | 61     | 5      |
| 70       | P058       | 1.52 | 36     | 257    | 1.43 | 101    | 5      |
| 71       | P059       | .88  | 13     | 156    | .68  | 60     | 5      |
| 72       | P060       | 1.30 | 24     | 177    | 1.02 | 74     | 5      |
| 73       | P061       | 1.38 | 23     | 185    | 1.10 | 75     | 5      |
| 74       | Y054       | 1.04 | 52     | 693    | 1.13 | 322    | 5      |



Appendix 11

List of sample for stream sediment  
geochemical survey in the Semporna area



Area: Samporna Area Grid: Paf

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geol. Unit       | Order | Width (m) | Flow #1 | Flow #2 | Color |
|----------|------------|-----------------------|----------------|------------------|-------|-----------|---------|---------|-------|
| 1        | PAf01      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 2.0       | 2       | 4       | B.    |
| 2        | PAf02      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 5.0       | 4       | 1       | B.    |
| 3        | PAf03      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 3.0       | 4       | 1       | B.    |
| 4        | PAf04      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 2     | 2.0       | 3       | 1       | B.    |
| 5        | PAf05      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 2     | 7.0       | 4       | 1       | B.    |
| 6        | PAf06      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 4.0       | 1       | 3       | Y.B.  |
| 7        | PAf07      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 2     | 4.0       | 1       | 3       | D.B.  |
| 8        | PAf08      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 2.5       | 2       | 4       | D.B.  |
| 9        | PAf09      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 3.0       | 1       | 3       | D.B.  |
| 10       | PAf10      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J | 1     | 1.5       | 3       | 2       | L.B.  |

Area: Samporna Area Grid: Paj

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geol. Unit        | Order | Width (m) | Flow #1 | Flow #2 | Color |
|----------|------------|-----------------------|----------------|-------------------|-------|-----------|---------|---------|-------|
| 41       | PAh01      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 2.0       | 3       | 3       | L.B.  |
| 42       | PAh02      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 3.0       | 4       | 3       | D.B.  |
| 43       | PAh03      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 2.5       | 4       | 3       | D.B.  |
| 44       | PAh04      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 1.0       | 2       | 3       | B.    |
| 45       | PAh05      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 1.0       | 3       | 3       | D.B.  |
| 46       | PAh06      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 2.0       | 3       | 3       | B.    |
| 47       | PAh07      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 10.0      | 4       | 3       | B.    |
| 48       | PAh08      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 3.0       | 2       | 2       | G.    |
| 49       | PAh09      | Sungai Tiagau         | S. Iapic       | N <sub>2</sub> Kp | 1     | 2.0       | 2       | 3       | B.    |
| 50       | PAh10      | Sungai Tiagau         | S. Iapic       | N <sub>2</sub> Kp | 1     | 1.0       | 3       | 3       | Y.B.  |
| 51       | PAh11      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 3.0       | 3       | 1       | Y.B.  |
| 52       | PAh12      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 5.0       | 3       | 1       | Y.B.  |
| 53       | PAh13      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 10.0      | 4       | 2       | Y.B.  |
| 54       | PAh14      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 3.0       | 4       | 2       | Y.B.  |
| 55       | PAh15      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 5.0       | 1       | 2       | B.    |
| 56       | PAh16      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 4.0       | 1       | 2       | D.B.  |
| 57       | PAh17      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 3.0       | 2       | 2       | Y.B.  |
| 58       | PAh18      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 3.0       | 3       | 4       | D.B.  |
| 59       | PAh19      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 5.0       | 1       | 3       | B.    |
| 60       | PAh20      | Sungai Tiagau         | S. Sumagas     | N <sub>2</sub> Kp | 1     | 2.0       | 2       | 1       | Y.B.  |
| 61       | PAh21      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 3     | 4.0       | 3       | 3       | B.Y.  |
| 62       | PAh22      | Sungai Tiagau         | S. Kalabakan   | mud./s.s.         | 3     | 12.0      | 2       | 3       | B.    |
| 63       | PAh23      | Sungai Tiagau         | S. Kalabakan   | mud./s.s.         | 1     | 1.0       | 3       | 3       | B.Y.  |
| 64       | PAh24      | Sungai Tiagau         | S. Sumagas     | mud./s.s.         | 1     | 1.5       | 2       | 3       | B.    |
| 65       | PAh25      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 3     | 3.0       | 3       | 3       | B.Y.  |

Area: Samporna Area Grid: Paf

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geol. Unit        | Order | Width (m) | Flow #1 | Flow #2 | Color |
|----------|------------|-----------------------|----------------|-------------------|-------|-----------|---------|---------|-------|
| 11       | PAg01      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J  | 1     | 1.0       | 2       | 3       | D.B.  |
| 12       | PAg02      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J  | 1     | 2.0       | 2       | 3       | D.B.  |
| 13       | PAg03      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J  | 1     | 1.0       | 2       | 1       | D.B.  |
| 14       | PAg04      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J  | 1     | 1.0       | 2       | 3       | D.B.  |
| 15       | PAg05      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J  | 2     | 2.0       | 2       | 3       | D.B.  |
| 16       | PAg06      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 1     | 4.0       | 4       | 2       | Y.B.  |
| 17       | PAg07      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 2     | 5.0       | 3       | 2       | B.    |
| 18       | PAg08      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 2     | 8.0       | 3       | 2       | Y.B.  |
| 19       | PAg09      | Sungai Tiagau         | S. Gukuan      | P.Kl              | 1     | 1.0       | 2       | 3       | Y.B.  |
| 20       | PAg10      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 1     | 4.0       | 3       | 2       | Y.B.  |
| 21       | PAg11      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 1     | 3.0       | 3       | 2       | Y.B.  |
| 22       | PAg12      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 1     | 3.0       | 3       | 2       | Y.B.  |
| 23       | PAg13      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> Kp | 1     | 3.0       | 4       | 3       | Y.B.  |
| 24       | PAg14      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> Kp | 1     | 5.0       | 4       | 1       | Y.B.  |
| 25       | PAg15      | Sungai Tiagau         | S. Tapie       | P.Kl              | 3     | 7.0       | 3       | 2       | Y.B.  |
| 26       | PAg16      | Sungai Tiagau         | S. Tapie       | N <sub>2</sub> J  | 2     | 3.0       | 4       | 2       | Y.B.  |
| 27       | PAg17      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> J  | 1     | 3.0       | 4       | 2       | B.    |
| 28       | PAg18      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> J  | 2     | 7.0       | 4       | 2       | B.    |
| 29       | PAg19      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> J  | 1     | 2.0       | 3       | 3       | B.    |
| 30       | PAg20      | Sungai Tiagau         | S. Tiagau      | N <sub>2</sub> Kp | 1     | 2.0       | 2       | 3       | B.    |
| 31       | PAg21      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 8.0       | 4       | 2       | B.    |
| 32       | PAg22      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 3     | 2.0       | 3       | 3       | D.B.  |
| 33       | PAg23      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 4.0       | 3       | 3       | D.B.  |
| 34       | PAg24      | Sungai Tiagau         | S. Tiagau      | N <sub>2</sub> Kp | 1     | 1.0       | 3       | 3       | D.B.  |
| 35       | PAg25      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 8.0       | 3       | 3       | B.    |
| 36       | PAg26      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 2     | 4.5       | 3       | 3       | B.    |
| 37       | PAg27      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 7.0       | 2       | 3       | D.B.  |
| 38       | PAg28      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> Kp | 1     | 1.0       | 3       | 3       | D.B.  |
| 39       | PAg29      | Sungai Tiagau         | S. Kalabakan   | N <sub>2</sub> J  | 1     | 3.0       | 2       | 2       | D.B.  |
| 40       | PAg30      | Sungai Tiagau         | S. Gukuan      | N <sub>2</sub> J  | 1     | 1.5       | 2       | 1       | D.B.  |

Area: Samporna Area Grid: Paj

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream   | Geol. Unit | Order | Width (m) | Flow #1 | Flow #2 | Color |
|----------|------------|-----------------------|------------------|------------|-------|-----------|---------|---------|-------|
| 66       | PAJ01      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 1     | 1.0       | 1       | 3       | B.Y.  |
| 67       | PAJ02      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 1     | 2.0       | 1       | 3       | B.Y.  |
| 68       | PAJ03      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 2     | 6.0       | 2       | 3       | B.Y.  |
| 69       | PAJ04      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 2     | 6.0       | 2       | 3       | B.Y.  |
| 70       | PAJ05      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 3     | 15.0      | 3       | 2       | B.    |
| 71       | PAJ06      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 3     | 15.0      | 3       | 2       | B.    |
| 72       | PAJ07      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 1     | 5.0       | 3       | 3       | B.    |
| 73       | PAJ08      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 1     | 5.0       | 3       | 3       | B.    |
| 74       | PAJ09      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 3     | 12.0      | 1       | 3       | B.    |
| 75       | PAJ10      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 2     | 8.0       | 2       | 1       | B.    |
| 76       | PAJ11      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 1     | 1.0       | 2       | 3       | B.    |
| 77       | PAJ12      | Sungai Tiagau         | S. Anjeranjermit | P.Kl       | 2     | 5.0       | 2       | 3       | B.    |

#1: none (0), puddle (1), slow (2), moderate (3), fast (4)  
 #2: coarse grained (1), medium grained (2), fine grained (3), clayey (4)

#1: none (0), puddle (1), slow (2), moderate (3), fast (4)  
 #2: coarse grained (1), medium grained (2), fine grained (3), clayey (4)

Area: Samporna Area Grid: P8f

Table with 10 columns: Ser. No., Sample No., Topographic Map Sheet, Name of Stream, Geology, Geol. Unit, Order, Width (m), Flow #1, Size #2, Color. Rows 78-104.

Table with 10 columns: Ser. No., Sample No., Topographic Map Sheet, Name of Stream, Geology, Geol. Unit, Order, Width (m), Flow #1, Size #2, Color. Rows 105-119.

\*1: none(0), middle(1), slow(2), moderate(3), fast(4)
\*2: coarse grained(1), medium grained(2), fine grained(3), clayey(4)

Area: Samporna Area Grid: P8g

Table with 10 columns: Ser. No., Sample No., Topographic Map Sheet, Name of Stream, Geology, Geol. Unit, Order, Width (m), Flow #1, Size #2, Color. Rows 120-166.

\*1: none(0), middle(1), slow(2), moderate(3), fast(4)
\*2: coarse grained(1), medium grained(2), fine grained(3), clayey(4)

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geology    | Geol. Unit | Order | Width (m) | Flow | Flow Size | Color |
|----------|------------|-----------------------|----------------|------------|------------|-------|-----------|------|-----------|-------|
| 165      | PBh01      | Sungai Tiagau         | S. Iapic       | siltstone  | N&P        | 2     | 6.0       | 1    | 4         | Y.B.  |
| 167      | PBh02      | Sungai Tiagau         | S. Iapic       | siltstone  | N&P        | 2     | 5.0       | 2    | 3         | Y.B.  |
| 168      | PBh03      | Sungai Tiagau         | S. Iapic       | silt./s.s. | P.KI       | 2     | 3.0       | 3    | 3         | D.B.  |
| 169      | PBh04      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 1     | 0.5       | 2    | 3         | D.B.  |
| 170      | PBh05      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 1     | 1.0       | 1    | 3         | Y.B.  |
| 171      | PBh06      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 1.5       | 2    | 4         | D.B.  |
| 172      | PBh07      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 2.0       | 2    | 2         | D.B.  |
| 173      | PBh08      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 3.0       | 2    | 3         | B.    |
| 174      | PBh09      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 4.0       | 0    | 2         | B.    |
| 175      | PBh10      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 2.0       | 0    | 2         | B.    |
| 176      | PBh11      | Sungai Tiagau         | S. Luasong     | mud./s.s.  | P.KI       | 1     | 2.0       | 2    | 1         | B.    |
| 177      | PBh12      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 1     | 2.0       | 1    | 4         | Y.B.  |
| 178      | PBh13      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 1     | 2.0       | 2    | 3         | D.B.  |
| 179      | PBh14      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 1     | 3.0       | 1    | 2         | D.B.  |
| 180      | PBh15      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 1     | 4.0       | 1    | 2         | D.B.  |
| 181      | PBh16      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 2     | 3.0       | 2    | 2         | B.G.  |
| 182      | PBh17      | Sungai Tiagau         | S. Tiagau      | siltstone  | P.KI       | 3     | 10.0      | 3    | 3         | D.B.  |
| 183      | PBh18      | Sungai Tiagau         | S. Bekandad    | siltstone  | P.KI       | 1     | 3.0       | 1    | 4         | D.B.  |
| 184      | PBh19      | Sungai Tiagau         | S. Bekandad    | siltstone  | P.KI       | 1     | 1.0       | 2    | 3         | Y.B.  |
| 185      | PBh20      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 3     | 10.0      | 3    | 2         | B.    |
| 186      | PBh21      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 2.0       | 3    | 2         | B.    |
| 187      | PBh22      | Sungai Tiagau         | S. Bekandad    | siltstone  | P.KI       | 2     | 2.5       | 2    | 3         | D.B.  |
| 188      | PBh23      | Sungai Tiagau         | S. Bekandad    | siltstone  | P.KI       | 1     | 1.0       | 2    | 3         | D.B.  |
| 189      | PBh24      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 2.0       | 2    | 2         | Y.    |
| 190      | PBh25      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 1     | 4.0       | 2    | 2         | Y.B.  |
| 191      | PBh26      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 1     | 2.0       | 1    | 2         | Y.B.  |
| 192      | PBh27      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 2     | 5.0       | 2    | 2         | Y.B.  |
| 193      | PBh28      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 1     | 2.0       | 2    | 1         | D.B.  |
| 194      | PBh29      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 1     | 2.0       | 2    | 2         | D.B.  |
| 195      | PBh30      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 1.0       | 2    | 3         | D.B.  |
| 196      | PBh31      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 1.5       | 2    | 3         | D.B.  |
| 197      | PBh32      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 1.0       | 2    | 4         | L.B.  |
| 198      | PBh33      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 2.0       | 2    | 2         | Y.G.  |
| 199      | PBh34      | Sungai Tiagau         | S. Luasong     | ---        | P.KI       | 1     | 2.0       | 2    | 1         | L.B.  |
| 200      | PBh35      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 5.0       | 2    | 1         | G.    |
| 201      | PBh36      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 3.0       | 1    | 3         | D.B.  |
| 202      | PBh37      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 2.0       | 1    | 4         | D.B.  |
| 203      | PBh38      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 2     | 6.0       | 2    | 2         | B.    |
| 204      | PBh39      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 1     | 2.0       | 2    | 3         | B.    |
| 205      | PBh40      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 1     | 1.0       | 1    | 2         | D.B.  |
| 206      | PBh41      | Sungai Tiagau         | S. Kalabakan   | mudstone   | N&P        | 1     | 3.0       | 0    | 2         | B.    |
| 207      | PBh42      | Sungai Tiagau         | S. Kalabakan   | ---        | N&P        | 1     | 2.0       | 0    | 1         | Y.B.  |
| 208      | PBh43      | Sungai Tiagau         | S. Sumegas     | ---        | N&P        | 2     | 7.0       | 3    | 2         | D.B.  |
| 209      | PBh44      | Sungai Tiagau         | S. Sumegas     | mudstone   | N&P        | 1     | 2.0       | 1    | 2         | D.B.  |
| 210      | PBh45      | Sungai Tiagau         | S. Luasong     | siltstone  | P.KI       | 1     | 1.0       | 2    | 3         | Y.B.  |
| 211      | PBh46      | Sungai Tiagau         | S. Sumegas     | siltstone  | N&P        | 3     | 5.0       | 2    | 3         | D.B.  |
| 212      | PBh47      | Sungai Tiagau         | S. Sumegas     | mudstone   | N&P        | 1     | 1.0       | 2    | 2         | D.B.  |
| 213      | PBh48      | Sungai Tiagau         | S. Tiagau      | mudstone   | P.KI       | 1     | 1.0       | 4    | 1         | B.    |
| 214      | PBh49      | Sungai Tiagau         | S. Tiagau      | ---        | P.KI       | 1     | 2.0       | 3    | 1         | B.    |
| 215      | PBh50      | Sungai Tiagau         | S. Tiagau      | ---        | P.KI       | 1     | 1.0       | 3    | 1         | B.    |

\*1: none (0), puddle (1), slow (2), moderate (3), fast (4)  
\*2: coarse grained (1), medium grained (2), fine grained (3), clayey (4)

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geology   | Geol. Unit | Order | Width (m) | Flow | Flow Size | Color |
|----------|------------|-----------------------|----------------|-----------|------------|-------|-----------|------|-----------|-------|
| 216      | PBh51      | Sungai Tiagau         | S. Tiagau      | ---       | P.KI       | 1     | 1.0       | 4    | 1         | B.    |
| 217      | PBh52      | Sungai Tiagau         | S. Tiagau      | ---       | P.KI       | 1     | 1.0       | 4    | 1         | B.    |
| 218      | PBh53      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 2     | 6.0       | 2    | 1         | L.G.  |
| 219      | PBh54      | Sungai Tiagau         | S. Tiagau      | siltstone | N&P        | 1     | 1.0       | 2    | 3         | Y.B.  |
| 220      | PBh55      | Sungai Tiagau         | S. Kalabakan   | ---       | P.KI       | 1     | 2.0       | 0    | 1         | B.    |
| 221      | PBh56      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 2.0       | 0    | 2         | B.    |
| 222      | PBh57      | Sungai Tiagau         | S. Tiagau      | siltstone | P.KI       | 2     | 3.0       | 1    | 2         | B.    |
| 223      | PBh58      | Sungai Tiagau         | S. Iapic       | siltstone | N&P        | 1     | 2.0       | 2    | 2         | Y.B.  |
| 224      | PBh59      | Sungai Tiagau         | S. Tiagau      | siltstone | P.KI       | 1     | 3.0       | 1    | 4         | Y.B.  |

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geology   | Geol. Unit | Order | Width (m) | Flow | Flow Size | Color |
|----------|------------|-----------------------|----------------|-----------|------------|-------|-----------|------|-----------|-------|
| 225      | PBj01      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 4.0       | 2    | 2         | B.    |
| 226      | PBj02      | Sungai Tiagau         | S. Kalabakan   | ---       | P.KI       | 1     | 1.0       | 2    | 4         | B.    |
| 227      | PBj03      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 1.0       | 2    | 3         | D.B.  |
| 228      | PBj04      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 2     | 3.5       | 3    | 4         | D.B.  |
| 229      | PBj05      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 2     | 2.0       | 2    | 4         | D.B.  |
| 230      | PBj06      | Sungai Tiagau         | S. Kalabakan   | ---       | P.KI       | 2     | 4.0       | 2    | 1         | B.    |
| 231      | PBj07      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 2     | 4.0       | 2    | 3         | B.    |
| 232      | PBj08      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 3.0       | 1    | 4         | G.    |
| 233      | PBj09      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 4.0       | 1    | 3         | L.B.  |
| 234      | PBj10      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 2.0       | 2    | 3         | B.    |
| 235      | PBj11      | Sungai Tiagau         | S. Kalabakan   | mudstone  | P.KI       | 1     | 1.5       | 3    | 3         | B.    |
| 236      | PBj12      | Sungai Tiagau         | S. Tiagau      | siltstone | P.KI       | 1     | 2.0       | 2    | 2         | D.B.  |

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geology   | Geol. Unit | Order | Width (m) | Flow | Flow Size | Color |
|----------|------------|-----------------------|----------------|-----------|------------|-------|-----------|------|-----------|-------|
| 237      | PCj01      | Sungai Tiagau         | S. Inbok       | sandstone | P.km       | 1     | 1.5       | 4    | 2         | B.    |
| 238      | PCj02      | Sungai Tiagau         | S. Inbok       | sandstone | P.km       | 3     | 10.0      | 4    | 2         | D.B.  |
| 239      | PCj03      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 4.0       | 2    | 3         | B.Y.  |
| 240      | PCj04      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 2     | 6.0       | 2    | 3         | B.Y.  |
| 241      | PCj05      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 4.0       | 3    | 3         | B.Y.  |
| 242      | PCj06      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 2.0       | 3    | 3         | B.Y.  |
| 243      | PCj07      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 2     | 6.0       | 2    | 3         | B.Y.  |
| 244      | PCj08      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 4.0       | 2    | 3         | B.Y.  |
| 245      | PCj09      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 4.0       | 2    | 3         | B.Y.  |
| 246      | PCj10      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 1.0       | 2    | 3         | B.Y.  |
| 247      | PCj11      | Sungai Tiagau         | S. Inbok       | siltstone | P.km       | 1     | 1.0       | 3    | 3         | D.B.  |
| 248      | PCj12      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 3.0       | 2    | 3         | B.Y.  |
| 249      | PCj13      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 2.0       | 2    | 3         | B.Y.  |
| 250      | PCj14      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 2.0       | 2    | 3         | B.Y.  |
| 251      | PCj15      | Sungai Tiagau         | S. Inbok       | ---       | P.km       | 1     | 3.0       | 2    | 3         | B.Y.  |

\*1: none (0), puddle (1), slow (2), moderate (3), fast (4)  
\*2: coarse grained (1), medium grained (2), fine grained (3), clayey (4)

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geology   | Geol. Unit | Order | Width (m) | Flow <sup>1</sup> / <sub>1</sub> | Size <sup>2</sup> / <sub>2</sub> | Color |
|----------|------------|-----------------------|----------------|-----------|------------|-------|-----------|----------------------------------|----------------------------------|-------|
| 294      | PG636      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 295      | PG637      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 2     | 5.0       | 2                                | 3                                | B.Y.  |
| 296      | PG638      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 2     | 7.0       | 0                                | 3                                | B.    |
| 297      | PG639      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 3.0       | 0                                | 3                                | B.Y.  |
| 298      | PG640      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 3     | 5.0       | 2                                | 3                                | B.Y.  |
| 299      | PG641      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 3.0       | 4                                | 1                                | B.    |
| 300      | PG642      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 2.0       | 2                                | 1                                | B.    |
| 301      | PG643      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 2.0       | 2                                | 1                                | B.    |
| 302      | PG644      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 2     | 7.0       | 3                                | 1                                | B.    |
| 303      | PG645      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 2     | 5.0       | 0                                | 1                                | B.    |
| 304      | PG646      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 3     | 3.0       | 0                                | 1                                | B.    |
| 305      | PG647      | Sungai Tiagau         | S. Mawing      | ---       | P.KI       | 1     | 2.5       | 3                                | 3                                | B.Y.  |
| 306      | PG648      | Sungai Tiagau         | S. Mawing      | siltstone | P.KI       | 1     | 2.0       | 1                                | 2                                | B.    |
| 307      | PG649      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 2.0       | 1                                | 3                                | B.Y.  |
| 308      | PG650      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 3     | 12.0      | 3                                | 2                                | B.    |
| 309      | PG651      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 2.0       | 3                                | 2                                | B.    |
| 310      | PG652      | Sungai Tiagau         | S. Mawing      | siltstone | P.KI       | 1     | 3.0       | 2                                | 3                                | L.B.  |
| 311      | PG653      | Sungai Tiagau         | S. Mawing      | siltstone | P.KI       | 1     | 3.0       | 1                                | 2                                | B.    |
| 312      | PG654      | Sungai Tiagau         | S. Luasong     | siltstone | P.KI       | 2     | 4.0       | 1                                | 3                                | B.    |
| 313      | PG655      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 1.0       | 2                                | 3                                | B.Y.  |
| 314      | PG656      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 1                                | 3                                | B.Y.  |
| 315      | PG657      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |

| Ser. No. | Sample No. | Topographic Map Sheet | Name of Stream | Geology   | Geol. Unit | Order | Width (m) | Flow <sup>1</sup> / <sub>1</sub> | Size <sup>2</sup> / <sub>2</sub> | Color |
|----------|------------|-----------------------|----------------|-----------|------------|-------|-----------|----------------------------------|----------------------------------|-------|
| 252      | PG116      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 4.0       | 2                                | 3                                | B.Y.  |
| 253      | PG117      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 2     | 6.0       | 2                                | 3                                | B.Y.  |
| 254      | PG118      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 3     | 3.0       | 3                                | 3                                | B.Y.  |
| 255      | PG119      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 256      | PG120      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 257      | PG121      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 2     | 4.0       | 2                                | 3                                | B.Y.  |
| 258      | PG122      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 1.0       | 2                                | 3                                | B.Y.  |
| 259      | PG601      | Sungai Tiagau         | S. Inbok       | siltstone | P.Kn       | 1     | 1.0       | 2                                | 3                                | B.Y.  |
| 260      | PG602      | Sungai Tiagau         | S. Inbok       | siltstone | P.KI       | 1     | 2.0       | 1                                | 4                                | B.    |
| 261      | PG603      | Sungai Tiagau         | S. Inbok       | siltstone | P.KI       | 1     | 2.0       | 1                                | 4                                | B.    |
| 262      | PG604      | Sungai Tiagau         | S. Inbok       | siltstone | P.KI       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 263      | PG605      | Sungai Tiagau         | S. Inbok       | siltstone | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 264      | PG606      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 3.0       | 3                                | 3                                | B.Y.  |
| 265      | PG607      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 2     | 5.0       | 3                                | 3                                | B.Y.  |
| 266      | PG608      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 2.0       | 3                                | 3                                | B.Y.  |
| 267      | PG609      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 2.0       | 3                                | 3                                | B.Y.  |
| 268      | PG610      | Sungai Tiagau         | S. Inbok       | ---       | P.Kn       | 1     | 3.0       | 3                                | 3                                | B.Y.  |
| 269      | PG611      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 1.0       | 2                                | 3                                | B.Y.  |
| 270      | PG612      | Sungai Tiagau         | S. Inbok       | siltstone | P.KI       | 1     | 2.0       | 3                                | 3                                | B.Y.  |
| 271      | PG613      | Sungai Tiagau         | S. Inbok       | ---       | P.KI       | 1     | 4.0       | 3                                | 3                                | B.Y.  |
| 272      | PG614      | Sungai Tiagau         | S. Inbok       | ---       | P.KI       | 1     | 3.0       | 3                                | 3                                | B.Y.  |
| 273      | PG615      | Sungai Tiagau         | S. Inbok       | ---       | P.KI       | 1     | 4.0       | 3                                | 3                                | B.Y.  |
| 274      | PG616      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 275      | PG617      | Sungai Tiagau         | S. Geminchau   | ---       | P.Kn       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 276      | PG618      | Sungai Tiagau         | S. Geminchau   | ---       | P.Kn       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 277      | PG619      | Sungai Tiagau         | S. Geminchau   | ---       | P.Kn       | 1     | 1.0       | 2                                | 3                                | B.Y.  |
| 278      | PG620      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 279      | PG621      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 280      | PG622      | Sungai Tiagau         | S. Geminchau   | ---       | P.Kn       | 2     | 3.0       | 2                                | 3                                | B.Y.  |
| 281      | PG623      | Sungai Tiagau         | S. Geminchau   | ---       | P.Kn       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 282      | PG624      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 2.0       | 2                                | 3                                | B.Y.  |
| 283      | PG625      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 284      | PG626      | Sungai Tiagau         | S. Brantian    | sandstone | P.Kn       | 1     | 2.0       | 2                                | 1                                | L.B.  |
| 285      | PG627      | Sungai Tiagau         | S. Luasong     | siltstone | P.Kn       | 1     | 2.0       | 2                                | 1                                | L.B.  |
| 286      | PG628      | Sungai Tiagau         | S. Luasong     | sandstone | P.KI       | 1     | 3.0       | 2                                | 1                                | L.B.  |
| 287      | PG629      | Sungai Tiagau         | S. Luasong     | siltstone | P.KI       | 1     | 5.0       | 2                                | 2                                | B.    |
| 288      | PG630      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 4.0       | 1                                | 2                                | B.    |
| 289      | PG631      | Sungai Tiagau         | S. Luasong     | siltstone | P.KI       | 1     | 3.0       | 2                                | 3                                | B.    |
| 290      | PG632      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 3.0       | 1                                | 2                                | B.    |
| 291      | PG633      | Sungai Tiagau         | S. Luasong     | ---       | P.KI       | 1     | 2.0       | 2                                | 2                                | B.    |
| 292      | PG634      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 3.0       | 2                                | 3                                | B.Y.  |
| 293      | PG635      | Sungai Tiagau         | S. Geminchau   | ---       | P.KI       | 1     | 2.0       | 2                                | 3                                | B.Y.  |

\*1: none (0), puddle (1), slow (2), moderate (3), fast (4)  
 \*2: coarse grained (1), medium grained (2), fine grained (3), clayey (4)